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Bulletin 246

# Catalog of Living Whales

PHILIP HERSHKOVITZ



SMITHSONIAN INSTITUTION
UNITED STATES NATIONAL MUSEUM

WASHINGTON, D.C. 1966



Page 240, second column, third primary entry, should read: eurynome,

Errata

Delphinus, 52, 53, 54



# SMITHSONIAN INSTITUTION



UNITED STATES
NATIONAL MUSEUM
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# Catalog of Living Whales

PHILIP HERSHKOVITZ

Chicago Natural History Museum

SMITHSONIAN INSTITUTION WASHINGTON, 1966

#### PUBLICATIONS OF THE UNITED STATES NATIONAL MUSEUM

The scientific publications of the United States National Museum include two series, *Proceedings of the United States National Museum and United States National Museum Bulletin*.

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This work forms number 246 of the Bulletin series.

FRANK A. TAYLOR Director, United States National Museum

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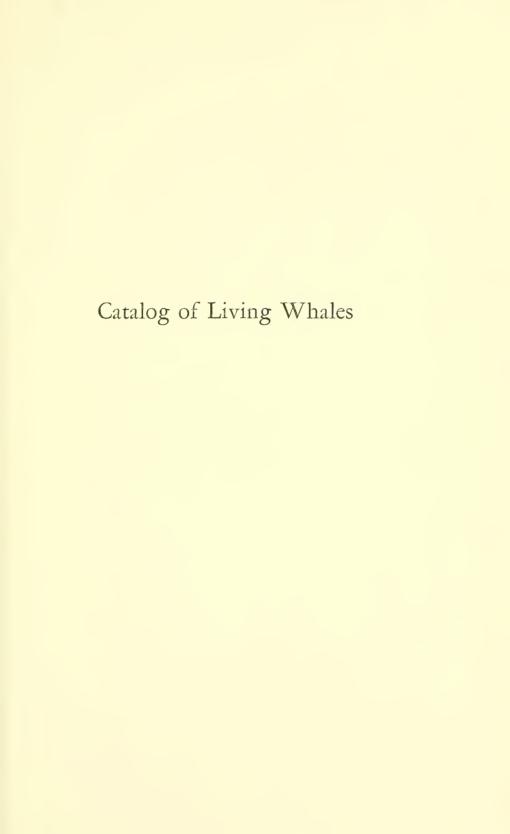
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# Introduction

This catalog was originally designed as a checklist of the cetaceans of South American waters only. It was clear from the start, however, that comparable limitations could not be imposed on the range of the literature to be consulted. It was also evident that a surprisingly small percentage of living species of marine cetaceans are unknown from South American and Antarctic seas. With nearly all the essential literature at hand, it was decided to include the extraterritorial forms and make the catalog world-wide in scope.

Virtually all original published records of the occurrence of cetaceans in the rivers, on the coasts, islands, and continental shelves of South America have been consulted and are cited herein. Bibliographic references to species or specimens recorded from other waters have been restricted to original descriptions of named forms, critical taxonomic revisions, marginal locality records, and some of the outstanding or interesting research on the biology of whales. Except for a few important works, commercial, statistical, and popular accounts of whales are not cited in this catalog. Submitted in May 1962, revised and brought up to date in December 1964, the paper has had final additions of new taxonomic and distributional data entered in March 1965.

My sincere appreciation is expressed to the late Mrs. Marion Grey and Mrs. Eugenie Bernhoff Jang for translations of the Russian cetological literature consulted by me and to Miss Pearl Sonoda for translations of Japanese works. My heartfelt thanks to Dr. Jack Fooden, who, in commuting between the Chicago Natural History Museum and the University of Chicago, never failed to bring me needed reference works from the magnificent libraries of the latter institution. To Dr. Joseph Curtis Moore, my gratitude for valuable suggestions.

Preparation of the manuscript was aided by grants (G-10753 and GB-2059) from the National Science Foundation.

Nomenclature.—The first attempt in the last 100 years to critically examine and evaluate the nomenclatorial status and zoological applicability of every scientific name proposed for living whales is made in this catalog. The few original descriptions not seen but cited perforce are noted accordingly.

Problems in nomenclature have been decided on the basis of the International Code of Zoological Nomenclature (1961) with the as yet unpublished interpretations and amendments adopted by the XVI International Congress held 1963 in Washington, D.C.

Article 23(b), or the so-called 50-year rule of the present Code, is am-

biguous and leads to confusion and dissension rather than to the stability and universality of zoological nomenclature its designers envisioned. Other methods for the conservation of well-known and widely used zoological names are provided by the Code but are hardly needed for animal groups that have been studied thoroughly and that have had their literature and nomenclature repeatedly reviewed. On the other hand, application of a law of conservation or limitation to groups such as the cetaceans, with the taxonomy of most of their genera and species provisional and their nomenclature correspondingly fluid, not only restricts freedom of zoological thought but also tends to spawn new problems for every one it purports to solve.

The bulk of modern cetological literature is nontaxonomic; the authors tend to accept uncritically the scientific names they find in compiled regional checklists and catalogs. For example, all compilers of current checklists of mammals cite the universally used generic names Delphinapterus, Hyperoodon, and Balaenoptera from Lacépède's classic "Histoire Naturelle des Cétacées," published 1804, yet fail to recognize the clearly described, fully documented, and figured Delphinus nesarnack (= Tursiops truncatus) in the same book. Similarly, it is difficult to comprehend why compilers categorize Dioplodon europaeus Gervais (=Mesoplodon europaeus= Nodus europaeus) as a nomen nudum in a work of one date and then ignore a valid proposal of the same name by the same author in a subsequent work, which they cite for other names, including Tursiops Gervais. In the same vein, modern compilers cite Mesoplodon Gervais from one opus and Dioblodon Gervais from a later one, when both names are proposed properly a few lines apart on the same page of the first work, with Dioplodon taking precedence. In any case, the two names are antedated by Nodus Wagler, which all modern compilers cite as a synonym of Hyperoodon Lacépède while they treat its type species as a junior synonym of Mesoplodon bidens Sowerby. Compilers who actually consult the works they cite could hardly be guilty of such carelessness and oversight.

Present rules of nomenclature, specifically Article 23(b) of the International Code of Zoological Nomenclature, condone and even favor what should be condemned as careless and bad nomenclatorial practices. For example, one or two, rarely as many as three, specialists during each of the last five or six generations have been interested particularly in the systematics of beaked whales. The results of most of these workers' efforts are preserved in arm-long synonymies. One of the effects of Article 23(b) is to permit each succeeding generation of workers to coin for itself a new set of technical names or to use whatever older designations are most convenient to a particular worker. Thus, there are 14 generic names for beaked whales currently assigned to Mesoplodon. According to present rules, two are junior homonyms and not available. Four are objective synonyms of Mesoplodon, two of them senior synonyms, but none are avail-

able under Article 23(b). Two others (one invalid) are cited as generic or subgeneric names for species densirostris but are not available under this article. Still another pair are valid but not available under the article as generic or subgeneric names for layardi. Similarly, one generic name for europaeus and another for grayi are valid but not available. In sum, this generation of specialists may erect a new generic or subgeneric name for each of the 11 currently recognized species of beaked whales except bidens, type of Mesoplodon, and hectori, type of Paikea Oliver, 1922. Under Article 23(b) the availability of this last generic name expires in 1972 unless it is used before that date in the primary literature as a senior synonym. This anomalous state of affairs is not peculiar to beaked whales. The same applies to the vast majority of generic, subgeneric, and specific group names of all whales (not to mention all mammals) now treated as junior synonyms. Their names are valid but not available under Article 23(b). Should future revisers find it necessary to recognize some of these taxa, it would be simpler to propose new names for them than to repair to the Commission on Zoological Nomenclature for rulings permitting revival of pertinent old names.

CLASSIFICATION.—Toothed and baleen whales represent divergent lines of evolution, according to some students, and convergent lines of diphyletic origin, according to others (cf. Kleinenberg, 1958, Doklady, Biol. Sci., vol. 122, no. 5, p. 950). Present purposes, however, require a linear arrangement of the species and all higher taxa. So far as is known, the toothed whales (Odontoceti) are considerably older than the baleen whales (Mysticeti) and are placed first. Using dentition as a primary character, fresh water dolphins, particularly the Susuidae, are regarded as most primitive. On the basis of the same criterion, a graded morphological series can be made from susuids through delphinids, monodontids, physeterids, and hyperoodontids to mysticetes. Evolution from the toothed to the baleen condition is still marked in living forms by the absence of functional maxillary teeth in the physeterids and by the occasional appearance of what may be rudimentary baleen in the palate of beaked whales (cf. Baussard, 1789, Journ. Phys., vol. 34, p. 201). Presence of embryonic teeth in baleen whales completes the series.

Baleen whales can be arranged phylogenetically on the basis of general form and, secondarily, on size. Rorquals clearly are less specialized than right whales with their exaggerated heads, humps, and baleen plates. Within each group or genus, the smaller and more typically formed or streamlined species is regarded as the more primitive. The evolutionary grade of other mysticete characters, taken singly or in combination, are in accord with the form and size criteria used here.

Principal works consulted on the evolution, classification, and biology of whales are listed in the selected bibliography. Others are cited under the generic and specific headings in the systematic section.

# Class MAMMALIA: Order CETACEA

#### Suborder ODONTOCETI

# Family SUSUIDAE

#### Genus PONTOPORIA Gray

Pontoporia Gray, 1846, Zoology of the voyage of H.M.S. Erebus and Terror, 1(Mammalia): 46; 1871, Proc. Zool. Soc. London, 1870: 772 [external characters; classification].—Gervais, in Van Bénéden and Gervais, 1880, Ostéographie des cétacés, p. 476 [characters; taxonomy].—Beddard, 1900, Book of whales, p. 301 [characters; Stenodelphis a synonym].—Fraser, in Norman and Fraser, 1938, Giant fishes, whales and dolphins, p. 342 [characters].—Winge, 1942, Interrelationships of the mammalian genera [English translation], 3: 245, 247 [characters; interrelationships; Stenodelphis a synonym].—Hershkovitz, 1961, Fieldiana, Zool., 39: 554 [nomenclature; Pontoporia Gray, 1846, not a homonym of Pontoporeia Krøyer, 1842, or antedated by Pontoporia Agassiz, 1846].

Stenodelphis d'Orbigny and Gervais, 1847, Voyage Amérique Mérid., 4(Mamm.): 32 (in text) [type species: Stenodelphis Blainvillei Gervais, by monotypy].—Gervais, 1855, Hist. Nat. Mamm., 2: 322 [characters; Pontoporia Gray a synonym].—Ameghino, 1891, Rev. Argentina Hist. Nat., 1: 254 [Pontoporia Gray regarded as "preoccupied" by Pontoporia Krøyer, 1842, a genus of Crustacea; type species: Stenodelphis Blainvillei Gervais].—Kellogg, 1928, Quart. Rev. Biol., 3: 33 et seq. [history; relationship].—Carvalho, 1961, Rev. Brasil. Biol., 21(4): 443 [characters; comparisons].

Type species: Delphinus Blainvillei Gervais, by monotypy.

DISTRIBUTION: Atlantic coast of South America from 30° S. to 42°30′ S.

#### Pontoporia blainvillei Gervais and d'Orbigny

Delphinus Blainvillei Gervais and d'Orbigny, 1844, Bull. Soc. Philom., pp. 38, 39 (Apr. 27).

Delphinus Blainvillei d'Orbigny and Gervais, 1847, Voyage Amérique Mérid., 4(Mamm.): 31, pl. 25 (animal; skull; teeth).

Pontoporia Blainvillii [sic], Gray, 1846, Zoology of the voyage of H.M.S. Erebus and Terror, 1(Mammalia): 46, pl. 29, figs. 1, 2 (skull) [characters; classification]; 1850, Cat. Mamm. Brit. Mus., Cetacea, p. 134,

pl. 7, fig. 4 (skull) [characters]; 1866, Cat. seals and whales Brit. Mus., p. 231 [listed].—Burmeister, 1867a, Proc. Zool. Soc. London, 1867: 484 [S. Atlantic: Argentina (Gueguen Grande, Buenos Aires, 38°33′ S.)]; 1867b, Zeitschr. gesammte Naturw., 29: 1 [S. Atlantic: Uruguay (Río de La Plata); measurements 40 inches long]; 1867c, Act. Soc. Paleo. Buenos Aires, Anal. Mus. Publ. Buenos Aires, 1: xix [S. Atlantic: Argentina (Río Gueguen Grande, Buenos Aires, 38° S., 59° W.); Uruguay (near Maldorado); anatomy]; 1867d, Anal. Mus. Publ. Buenos Aires, 1: 305, 389, pls. 23, fig. 1 (animal), pl. 25 (skeleton), pl. 26 (skull), pl. 27 (mouth, throat), pl. 28 (larynx, trachea, lungs) [S. Atlantic: Argentina (Río Queguen (=Gueguen) Grande, mouth); characters; taxonomic history].

Pontoporia blainvillii [sic], Flower, 1869, Trans. Zool. Soc. London, 6: 87, pl. 28 (skull) [cranial characters]; 1885, List Cetacea Brit. Mus., p. 13 [Brazil (Rio Grande do Sul); Argentina (Río de la Plata)].—Beddard,

1900, Book of whales, p. 303 [characters; classification].

Pontoporia Blainvillei, Gervais, in Van Bénéden and Gervais, 1880, Ostéographie des cétacés, p. 479 [taxonomic history; osteology].— Abel, 1901, Mem. Mus. Roy. Hist. Nat. Belgique, pl. 1 (fig. 5), pl. 2 (fig. 4), pl. 3 (fig. 2), pl. 4 (fig. 1, skull) [comparisons].

Pontoporia blainvillei, Thomas, 1910, Ann. Mag. Nat. Hist., (8), 5: 247

[S. Atlantic: Argentina (Buenos Aires, coast)].

Pontoporia (Stenodelphis) blainvillei Fraser, in Norman and Fraser, 1938, Giant fishes, whales and dolphins, p. 342, fig. 97 (animal) [characters]. Stenodelphis Blainvillei, d'Orbigny and Gervais, 1847, Voyage Amérique Mérid., 4(Mamm.): 32 (in text) [original generic combination].— Hensel, 1873, Abh. Akad. Wiss. Berlin, 1872: 110 [S. Atlantic: Brazil (Lagôa dos Patos, Rio Grande do Sul); skull found on banks].-Ameghino, 1891, Rev. Argentina Hist. Nat., 1: 254 [type of Stenodelphis Gervais, 1847].—Ihering, 1892, Mammiferos do Rio Grande do Sul, p. 104 [S. Atlantic: Brazil (Costa da Lagôa dos Patos, near Porto do Taipes, Rio Grande do Sul)].-Figueira, 1894, Anal. Mus. Nac. Montevideo, 2: 11 (separate) [S. Atlantic: Uruguay (Atlantic and La Plata coasts); local name: "franciscana"].—Lahille, 1899a, Primera reunión del Congreso latinoamericano, 3: 34 [distribution; local names: "topina," "franciscana"]; 1899b, Rev. Mus. La Plata, 9: 389, pl. 1 (adult and fetus) [S. Atlantic: Argentina (Peninsula de Valdés, Chubut, 42° 30' S.); measurements]; 1905, Rev. Jardín Zool. Buenos Aires, 1905: 56 [distribution strictly marine; food; local names: "franciscana," "tonina"]; 1914, Enum. Zoogeogr. Mamm. Republica de Argentina, p. 29 [listed].—Fraser and Purves, 1960, Bull. Brit. Mus. (Nat. Hist.), Zool., 7: 44 et seq., fig. 17 (pterygoid sinus), pls. 19, 20 (skull) [auditory system].

[Stenodelphis] Blainvillei, Trouessart, 1898, Cat. Mamm., p. 1016 [classi-

fication; tenuirostris Malm, 1870, a synonym].

Stenodelphis blainvillei, Slijper, 1930, Bull. Mus. Roy. Hist. Belgique, 14(10): 13 [skeleton in museum collection].—Cabrera and Yepes, 1940, Mamíferos Sudamericanos, p. 293, pl. 72 (animal) [characters; habits; distribution].—Kellogg, 1928, Quart. Rev. Biol., 3: 71, fig. 11 (skull) [characters; relationships].—Fraser and Purves, 1960, Bull. Brit. Mus. (Nat. Hist.), Zool., 7: 91, 107, fig. 17b (pterygoid sinus), pls. 19–20 (skull).—Carvalho, 1961, Rev. Brasil. Biol., 21(4): 443, fig. 2 (animal), figs. 3–5 (skull), figs. 6–11 (skeleton) [S. Atlantic: Brazil (Santos, São Paulo); external characters; osteology; measurements; comparisons; stomach contents: clupeids, crustaceans].

Stenodelphis blainvillii [sic], Kellogg, 1940, Nat. Geogr. Mag., 77(1): 81,

pl. 15 (animal) [characters; habits; distribution].

Pontoporia tenuirostris Malm, 1871, Kongl. Svenska Vetensk. Akad. Handl., 9(2): 46, pl. 2, fig. 10a (animal), 10b-c (skull), pl. 4, fig. 34 (forelimb bones) [S. Atlantic: Uruguay (type locality: Montevideo); type a mounted skin; skull in Goteborg Naturhistoriska Museum].

Type: Skull only, Muséum National d'Histoire Naturelle, Paris; collected by M. de Fréminville.

Type locality: Mouth of Río de La Plata, near Montevideo, Uruguay. Distribution: Atlantic coast of South America from Rio Grande do Sul, Brazil (Lagôa dos Patos), to Peninsula Valdés, northern Chubut, Argentina.

## Genus INIA d'Orbigny

Inia d'Orbigny, 1834, Ann. Mus. Hist. Nat., Paris, 3: 31.—Gervais, 1855, Castelnau Expèd. Amérique du Sud, pt. 7, Zool., Mamm., p. 90 [characters; taxonomy].—Flower, 1869, Trans. Zool. Soc. London, 6: 98 [review].—Van Bénéden and Gervais, 1880, Ostéographie des cétacés, p. 468 [taxonomic review].—Beddard, 1900, Book of whales, pp. 293, 296 [characters].—Kellogg, 1928, Quart. Rev. Biol., 3: 54 et seq. [characters; history; relationships].—Winge, 1942, Interrelat. Mamm. Gen., 3: 245, 247, 273, 297 [characters; classification].—Fraser and Purves, 1960, Bull. Brit. Mus. (Nat. Hist.), Zool., 7: 45 et seq., fig. 26 (table) [classification; auditory system].

Type species: Inia Boliviensis d'Orbigny (=Inia geoffrensis Blainville), by monotypy.

DISTRIBUTION: Tropical zones of the Amazonian drainage system in Brazil, Bolivia, northern Peru, Ecuador, Colombia, Venezuela (upper Río Negro) and the connecting Casiquiare Canal, and upper Río Orinoco system westward into the upper Río Guaviare system in Colombia. *Inia* occurs above the cataracts of the upper Guaviare in Meta, Colombia, and

the rapids (Pongo de Guarracayo) of the Marañon in Amazonas, Peru, where *Sotalia* is not known to occur.

#### Inia geoffrensis Blainville

Delphinus rostratus, G. Cuvier (part, not Shaw), 1812, Ann. Hist. Nat., Paris, 19: 10 ["dauphin à museau grêle" in Paris Museum, brought from Portugal by E. Geoffroy].

Delphinus [(Delphinorhynchus)] Geoffrensis Blainville, 1817, Nouv. Dict. Hist. Nat., 9: 151.—Gervais, 1856, Compt. Rend. Acad. Sci., Paris, 42: 806 [Brazil (Rio Uruguay (=Araguaia)); synonyms: amazonicus, boliviensis; characters].

Inia Geoffrensis, Gervais, 1855, Castelnau Expéd. Amérique du Sud, pt. 7, Zool., Mamm., p. 90, pl. 19, fig. 3 (animal) [Peru (Nauta, Río Marañon, Loreto; Río Ucayali, Loreto); Bolivia: (rivers of Moxos and Santa Cruz, Río Mamoré, Río Guaporé); characters; synonyms: amazonicus, boliviensis, skin only of type of frontatus Cuvier (Hist. Cet., 1836, p. 120)]; 1856, Compt. Rend. Acad. Sci. Paris, 42: 806 [taxonomy].—Van Bénéden, 1868, Bull. Acad. Roy. Sci. Belgique, 25: 93 [specimen in Berlin Museum collected by Natterer].—Abel, 1901, Mem. Mus. Roy. Hist. Nat., pl. 1 (fig. 6), pl. 2 (fig. 5), pl. 3 (fig. 3), pl. 4 (fig. 2, skull) [comparisons].

Inia geoffrensis, Flower, 1869, Trans. Zool. Soc. London, 6: 87, pls. 25-27 (skeleton) [Peru (Nauta, Río Marañon, Loreto); osteology; classification].—Gervais, in Van Bénéden and Gervais, 1880, Ostéographie des cétacés, p. 468, pls. 32, 33 (skeleton) [osteology; taxonomic history; distribution; part synonyms: D. geoffroyi Desmarest, D. frontatus Cuvier, D. amazonicus Spix and Martius, Inia boliviensis d'Orbigny].-Flower, 1885, List Cetacea Brit. Mus., p. 13.—Beddard, 1900, Book of whales, p. 299 [characters].—Lönnberg, 1928, Ark. Zool., Stockholm, 20A(1): 1, pl. 1 (osteology) [pelvic rudiments; phalanges].—Kellogg, 1928, Quart. Rev. Biol., 3: 56, fig. 7 (skull) [characters; history; relationships].—Fraser, in Norman and Fraser, 1938, Giant fishes, whales and dolphins, p. 34 [characters; habits].—Kellogg, 1940, Nat. Geogr. Mag., 77(1): 81, pl. 15 (animal) [Bolivia (Rio Guaporé-Río Mamoré); Brazil (Rio Purús from mouth to Hyutanahan; Río Negro; Río Branco; Rio Tacatu, Roraima region); Venezuela (upper Río Orinoco and Casiquiare); characters; habits; names: "Amazon River dolphin," "bouto"].-Miranda Ribeiro, 1943, Arq. Mus. Nac. Rio de Janeiro, 37: 23, figs. 1-5 (animals), fig. 6 (posteranial skeleton), fig. 7 (skull), fig. 8 (ear bones), figs. 11-12 (skull), figs. 13-16 (middle and inner ears), figs. 17-25 (skeleton) [characters; taxonomic history; history of type specimen; habits].—Vieira, 1948, Bol. Mus. Paraense, 10: 267 [Brazil (upper Rio Juruá); local name: "boto"].—Vieira, 1951, Papeis Avulsos, 10: 122 [Brazil (São Domingo, Rio das Mortes, Mato

Grosso)].—Lamb, 1954, Nat. Hist. (New York), 63: 231 [Brazil: Pará (São Luiz, Rio Tapajóz); cooperative fishing with man].—Vieira, 1955, Arg. Zool., São Paulo, 8: 439 [Brazil (Rio Amazonas, Amazonas; upper Rio Juruá, Amazonas; Rio Araguaia, Goias; Rio Tocantins, Goias; Rio das Mortes, Mato Grosso); Bolivia (Río Madeira; Río Bení; Río Guaporé)].-Allen and Neil, 1957, Nat. Hist., (New York), 66: 324, text figs. (animal) [Colombia (Letitia, Río Amazonas); capture of live individuals].—Layne, 1958, Journ. Mammal., 39: 1, pl. 1 (animal), pl. 2 (skull) [Colombia (Leticia; Río Amazonas); characters; comparisons; habits].—Layne, 1959, Anatomical Record, 134: 598 [feeding adaptation and behavior]. Fraser and Purves, 1960, Bull. Brit. Mus. (Nat. Hist.), Zool., 7: 60 et seq., fig. 17 (pterygoid sinus), pls. 21, 22 (skull) [auditory system].—Sanchez Romero, 1960, Pesca y Caza (Lima), 10: 38 [Peru (Cocha Zapote, Río Pacaya, Loreto, 5°30′ S., 75° W.)].—Carvalho, 1961, Rev. Biol. Trop., 9(1): 1-15, fig. 3 (animal) [Brazil (Poçao, Rio Mucajai, upper Rio Branco, Rio Branco); characters; habits; food; local name: "bôto pretinho"].-Olivares, 1962, Rev. Acad. Colombiana Cienc. Ex., Fis., Nat., 11: 306 [Colombia (Río Guayabero, Meta)].—Hershkovitz, 1963, Journ. Mammal., 44: 99 [Colombia (Río Dudila (sic=Río Dudita), upper Güejar, Río Guaviare, above rapids)].-Layne and Caldwell, 1964, Zoologica, 49(2): 81, pls. 1-3, pl. 4, figs. 9, 10 (animals in captivity), pl. 4, fig. 8 (jaws) [Colombia (Leticia, Amazonas); behavior in captivity (physiology, locomotion, breathing, senses, learning ability, feeding, sexual behavior, play, vocalization, sociability)].—Mohr, 1965, Zool. Gart., n.f. (1964), 29(5): 262, figs. 1-9 (animal) [Colombia: Meta (Caño Duida (sic=Río Dudita), upper Güejar, Río Guaviare); Peru: Loreto (Río Pacaya); external characters, habits ex literature].—Curtis, 1963, Internat. Zoo Yearbook, 4:7.

Delphinus [(Delphinorhynchus)] Geoffroyi [sic], Desmarest, 1822, Mammalogie, 2: 512 [emendation of geoffrensis Blainville; specimen in Paris museum originally in the Lisbon museum; believed to be from the coast of Brazil].

Delphinorhynchus Geoffroyi [sic], Lesson, 1827, Manuel Mamm., p. 405 [characters].—Lesson, 1834, Complément des oeuvres de Buffon, p. 440 [classification].

Delphinus Geoffroyi [sic], Spix and Martius, 1831, Reise in Brasiliens, 3: 1131 [type from Rio Amazonas, collected by Alexandre Rodriguez Ferreira].—Lesson, 1834, Compl. Buffon, Cétacés, p. 204 [characters].—Gray, 1856, Ann. Mag. Nat. Hist., (2), 18: 157 [characters; Inia boliviensis d'Orbigny a synonym].

Inia Geoffroyi [sic], Bates, 1863, Naturalist on the River Amazons, 1: 146 [Brazil (Rio Tocantins, mouth)].

Inia Geoffroyii [sic], Gray, 1846, Zoology of the voyage of H.M.S. Erebus

and Terror, 1(Mammalia): 45 [characters ex type in Paris museum]; 1850, Cat. Mamm. Brit. Mus., Cetacea, p. 135, pl. 7, fig. 3 (skull) [characters; synonymy]; 1866, Cat. seals and whales Brit. Mus., p. 226 [characters; taxonomic history; synonymy]; 1871, Suppl. Cat. seals and whales Brit. Mus., p. 64 [characters].

Inia geoffroyensis [sic], Austin, 1897, Proc. Zool. Soc. London, 1896: 771 [Brazil (vicinity of Paraná de Buyasou (=Buiuçu or Buyussú), lower Rio Amazonas, Pará; Furo de Monte Alegre, Rio Amazonas, Pará); size; color; swimning].—Slijper, 1936, Die Cetaceen (in text) [comparative anatomy; phylogeny].—Cabrera and Yepes, 1940, Mamíferos sudamericanos, p. 292 [characters; habits; distribution; local names: "boto," "bufeo"].

Delphinus frontatus G. Cuvier, 1823, Oss. Foss., 5: 278, 296 (not pl. 21, figs. 7, 8) [name based on mounted skin of specimen in Paris Museum, collected by Alexandre Rodriguez Ferreira and originally exhibited in the Ajuda Museum, Lisbon, and a skull of unknown origin identified with Delphinus rostratus Desmarest (not Shaw) (=bredanensis Lesson); type here restricted to skin].—F. Cuvier, 1836, Hist. Nat. Cétacés, p. 120 [part, skin only; skull=Delphinus rostratus Desmarest=Steno bredanensis].

Delphinus amazonicus Spix and Martius, 1831, Reise in Brasilien, 3: 1118, 1133 [Brazil (type locality: Rio Amazonas, as far west as Maynas (=Río Huallaga, Peru)); type (skin and skull?) presumably in the Munich Museum; habits; believed to be identical with Delphinus Geoffroyi Desmarest].—Poeppig, 1836, Reise Chile, Peru, Amazonstr., 2: 374 [Peru (Maynas, Río Huallaga, Loreto)].

D[elphinus] Amazonicus, Cabanis and Schomburgk, 1848, Reisen British Guiana, 2: 18, 3: 786 [Brazil (Rio Tacutu, on Guianan border); seen, not captured].

Inia amazonicus, Pelzeln, 1883, Verh. K. K. Zool.-bot. Gesellsch., Wien, Beiheft, 33: 94 [Brazil (Rio Guaporé below La Lanterna; Borba, Rio Madeira)].

Inia Boliviensis d'Orbigny, 1834, Nouv. Ann. Mus. Hist. Nat., Paris, 3: 31, pl. 3, fig. 1 (animal), fig. 2 (skull), fig. 3 (dentition) [Bolivia (type locality: rivers of the plains of Moxos that form the Mamoré and Guaporé)].

J[sic=I(nia)] Boliviensis, F. Cuvier, 1836, Hist. Nat. Cétaces, p. 167, pl. 10 bis (animal) [characters ex d'Orbigny].

Inia boliviensis, d'Orbigny and Gervais, 1847, Voyage Amérique Mérid.,
4(Mamm.): 30, pl. 22 (animal) [Bolivia (rivers of the provinces of Moxos and Chiquitos and all upper tributaries of the Amazon)].—
Gervais, 1856a, Compt. Rend. Acad. Sci. Paris, p. 806; 1856b, Ann.
Mag. Nat. Hist., (2), 17: 521 [taxonomic history; English translation of previous article].

Delphinus Inia Rapp, 1837, Die Cetaceen, p. 47 [new name for Inia boliviensis d'Orbigny.—Schlegel, 1841, Abhandlungen aus der Gebiete der Zoologie und vergleichenden Anatomie, 1: 24 [characters]].

"Inia de Geoffroy," Gervais, 1877, Journ. Zool., Paris, 6: 279 [Peru (Río Ucayali); skeleton in Bordeaux Museum collected by Saint Criq].

Sotallia [sic] pallida, Sanborn (not Gervais), 1949, Journ. Mammal., 30: 287 [Peru (Yarinacocha, Río Ucayali, Loreto)].

Inia sp., Guallart, 1962, Biota (Lima), 4: 161 [Peru (Amazonas; ascends Río Marañon to mouth of Río Cenepa); local names: "bufeo," "apupu"].

Type: Mounted specimen, Muséum National d'Histoire Naturelle, Paris; collected by Alexandre Rodriguez Ferreira about 1790 and deposited in the Museu da Ajuda, Lisbon; brought to the Muséum National d'Histoire Naturelle, Paris, in 1810 by E. Geoffroy St. Hilaire (see Miranda Ribeiro, 1943, Arq. Mus. Nac. Rio de Janeiro, 37:23); the mounted skin was painted to simulate its natural colors (cf. G. Cuvier, 1812, Ann. Mus. Hist. Nat., 19:10).

Type locality: Brazil; according to Gervais (supra cit.) probably from upper Amazon.

DISTRIBUTION: The same as for the genus.

#### Genus LIPOTES Miller

Lipotes Miller, 1918, Smithsonian Misc. Coll., 68(9): 2.—Kellogg, 1928, Quart. Rev. Biol., 3: 54 et seq. [characters; history; relationship].—Winge, 1942, Interrelat. Mamm. Gen., 3: 306 [characters; classification].—Fraser and Purves, 1960, Bull. Brit. Mus. (Nat. Hist.), Zool., 7: 46 et seq., fig. 26 (table) [auditory system; classification].

Type species: Lipotes vexillifer Miller, by original designation.

DISTRIBUTION: Known only from the Tungting Lake and the Yangtzekiang River, Hunan, China.

## Lipotes vexillifer Miller

Lipotes vexillifer Miller, 1918, Smithsonian Misc. Coll., 68(9): 2, fig. 1 (teeth), pl. 1 (animal), pls. 2–10 (skull), pls. 11–13 (vertebrae).— Kellogg, 1928, Quart. Rev. Biol., 3: 57 [characters; relationships; local name: "pench'i"].—Fraser and Purves, 1960, Bull. Brit. Mus. (Nat. Hist.), Zool., 7: 46 et seq., pl. 23 (skull) [auditory system].

Type: Male, skull and cervical vertebrae, U.S. National Museum, no. 218293; collected Feb. 18, 1916, by Charles M. Hoy.

Type locality: Tungting Lake, Hunan, China.

DISTRIBUTION: The same as for the genus.

#### Genus SUSU Lesson

Susu Lesson, 1828, Complément des oeuvres de Buffon, pl. 3, fig. 3 (animal with name in caption), p. 440 (name in index.)—Hershkovitz, 1961, Fieldiana, Zool., 39: 554 [nomenclature].

Platanista Wagler, 1830, Nat. Syst. Amphibien, p. 35 [new name for Susu Lesson, derived from the "platanista" of Pliny].—Kellogg, 1928, Quart. Rev. Biol., 3: 46 et seq. [history; relationship].—Fraser and Purves, 1960, Bull. Brit. Mus. (Nat. Hist.), Zool., 7: 7 et seq., fig. 13 (tympanoperiotic bones), figs. 14, 17 (pterygoid sinus), fig. 23 (air sac system).—Winge, 1942, Interrelat. Mamm. Gen., 3: 246, 285 [characters; classification].

Susa Wagler, 1830, Nat. Syst. Amphibien, p. 35 [misprint for Susu Lesson in the combination "Susa Platanista Less"].

Sousou F. Cuvier, 1836, Hist. Nat. Cétacés, p. 257 [emendation of Susu Lesson, 1828].

Soosoo Hamilton, 1837, in Jardine, Naturalist's Library, Mammalia, 6(Whales): 254 [emendation of Susu Lesson, 1828].

Platanistina Neave, 1940, Nomen. Zool., 3: 780 [regarded as an "emend-[ation] pro [Plata]nista Wagler 1830 [by] Gray, (1846), Zool. 'Ereb. Terr.' (Cetac.), 45," but used by Gray only as a supergeneric or tribal taxon, with Platanista Wagler the type].

Type Species: Susu Platanista Lesson (in caption to pl. 3, fig. 3, and index, p. 440) (= Delphinus gangeticus Lebeck; in text, p. 215).

DISTRIBUTION: Confined to the Ganges-Brahmaputra Rivers in India, Pakistan, and Assam, the Hooghly River in Bengal, India, and the Indus in western Pakistan and northwestern India (Sutlej River), from tidal waters to the Himalayas.

### Susu gangetica Lebeck

Delphinus gangetica Lebeck, 1801, Neue Schrift. Gesellsch. Naturf. Fr. Berlin, 3: 280, pl. 2 (animal, genitalia, mouth).—Roxburgh, 1803, Asiatic research or transactions, Asiatic Soc. Bengal, Calcutta, 7: 171, pl. 3 (animal) [Indian: India (type locality: Ganges River Delta, near Calcutta; distributed upstream to head of navigation); habits].—Desmarest, 1822, Mammalogie, p. 513 [characters; synonyms: rostratus Shaw, shawensis Blainville].—Lesson, 1828, Complément des oeuvres de Buffon, p. 215 [characters; synonymy].

D[elphinus] Gangeticus, Cuvier, 1823, Recherches sur les ossemens fossiles, 5: 278, 298, 315, pl. 22, figs. 8–10 (skull) [cranial characters].

Delphinorhynchus Gangeticus, Lesson, 1827, Man. Mamm., p. 406 [characters; synonymy].

P[latanista] gangetica, F. Cuvier, 1836, Hist. Nat. Cétacés, p. 252, pl. 8, fig. 2 (animal), pl. 18 (skull) [characters; history].

Soosoo Gangeticus, Hamilton, 1837, Jardine's Naturalist's Library, Mammalia, 6 (Whales): 254, p. 28 (animal) [characters].

Platanista Gangetica, Eschricht, 1851, Kongl. Danske Vidensk. Selsk. Skrift., (5), 2: 1-43 (separate), pl. 1 (animal, skeleton), pls. 2, 3 (skull, vertebrae) [India (Ganges River (Galathea Expedition)); characters; comparisons; taxonomy; relationships; habits].—Eschricht, 1852, Ann. Mag. Nat. Hist., (2), 9: 160, 279, pl. 1 (animal), pls. 2, 3 (skull, vertebrae) [English translation of original article in Danish].—Owen, 1853, Descr. Cat. Osteol. Ser. Mus. Roy, College Surgeons, 2: 449 [upper and lower jaws of gangetica Roxburgh, Museum College of Surgeons, no. 2482, given by Roxburgh to Sir Joshua Brookes, who presented it to the Museum via Sir Edward Home].—Blyth, 1859, Journ. Asiatic Soc. Bengal, 28: 492, ftn. 492, 493 [India (Hugli (Hooghli) River)].—Gray, 1866, Cat. seals and whales Brit. Mus., p. 223 [history; characters; synonymy].—Blanford, 1891, Fauna British India, p. 590, fig. 193 (skull), fig. 194 (animal) [Pakistan (Indus River); India (Ganges River, Brahmaputra River); tidal waters to mountains; never enters sea; characters; habits; indi Blyth a synonym].—Fraser and Purves, 1960, Bull. Brit. Mus. (Nat. Hist.), Zool., 7: 132, pls. 17, 18 (skull) [auditory system].

Platanista gangetica, Kellogg, 1928, Quart. Rev. Biol., 3: 174, fig. 13 (skull) [characters; history; relationships].

Delphinus Rostratus Shaw, 1801, Gen. Zool., 2(2): 514 [type locality: "supposed to inhabit the Indian Seas"].

Delphinus rostrats [sic], F. Cuvier, 1836, Hist. Nat. Cétacés, p. 253 [misprint for rostratus].

Delphinus Shawensis Blainville, 1817, Nouv. Dict. Hist. Nat., 9: 153 [new name for rostratus Shaw; characters].—Gray, 1866, Cat. seals and whales Brit. Mus., p. 223 [in synonymy of Platanista Gangetica; type specimen in Mus. Roy. College of Surgeons].

Delphinus schawensis [sic], F. Cuvier, 1836, Hist. Nat. Cétacés, p. 253 [misspelling for shawensis].

Susu Platanista Lesson, 1828, Complément des oeuvres de Buffon, pl. 3, fig. 3 (animal), p. 440 (index), p. 215 (text) [new name for Delphinus gangeticus Lebeck; characters].

Susa [sic] Plantanista [sic], Wagler, 1830, Nat. Syst. Amphibien, p. 35.

Platanista Indi Blyth, 1859, Journ. Asiatic Soc. Bengai, 28: 493 [Pakistan (type locality: Indus River); type skull in Asiatic Society Museum, Calcutta].

Platanista Gangetica var. minor Owen, 1853, Descr. Cat. Osteol. Roy. Mus. Coll. Surgeons, p. 448 [Pakistan (type locality: Indus River); type skull in Museum of Royal College of Surgeons, presented by David Wallich].

Type: Adult male, found stranded November 1797, and figured by Lebeck in the original description.

Type locality: Hooghly River, near Calcutta, West Bengal, India.

DISTRIBUTION: The same as for the genus.

# Family DELPHINIDAE

#### Genus STENO Gray

Steno Gray, 1846, Zoology of the voyage of H. M. S. Erebus and Terror, 1(Mammalia): 30, 43 [included species: the steno, Delphinus rostratus Cuvier (=Steno bredanensis, type by virtual tautonomy), Delphinus frontatus Cuvier (=Delphinus bredanensis Lesson), D. compressus Gray (=D. bredanensis Lesson), D. attenuatus Gray (=Stenella dubia Cuvier), Steno fuscus Gray (=?Steno fuscus Gray)].—Flower, 1884, Proc. Zool. Soc. London, 1883: 482, 513 [taxonomy; type species: Delphinus rostratus Cuvier (=Delphinus bredanensis Lesson), Glyphidelphis Gervais a synonym].—True, 1889, Bull. U. S. Nat. Mus., 36: 23, 156 [taxonomy].
—Kellogg, 1928, Quart. Rev. Biol., 3: 33 et seq. [history; relationship].
—Winge, 1942, Interrelat. Mamm. Gen., 3: 308 [characters; classification].

Glyphidelphis Gervais, 1859, Zool. Paleo. Française, p. 301 [type species: Delphinus rostratus Cuvier (= Delphinus bredanensis Lesson)].

Stenopontistes Miranda Ribeiro, 1936, Bol. Mus. Nac. Rio de Janeiro, 12:
19, 42 [type species: Stenopontistes zambezicus Miranda Ribeiro (=Steno bredanensis Lesson)].

Type species: Delphinus rostratus Cuvier (= Delphinus bredanensis Lesson). Distribution: In the North Atlantic: from the Netherlands to Portugal and off Sénégal and Ivory Coast on the east, and Virginia to Florida and possibly Cuba on the west; in the South Atlantic: from 1°14′ S., 17°20′ W., and the coast of Brazil and Argentina to northeast of Tristan da Cunha (32° S., 2° W.); in the North Pacific: from off California, Hawaii, and Japan; in the South Pacific: from the Galápagos Islands; in the Indian Ocean: from the Gulf of Aden and Mossel Bay, South Africa, to Bay of Bengal and Java.

#### Steno bredanensis Lesson

Delphinus rostratus Desmarest, 1817, Nouv. Dict. Nat. Hist., 9: 160 [France (type locality: Paimpol, Brittany); name preoccupied by Delphinus rostratus Shaw, 1801 (=Susu gangetica Lebeck)].—F. Cuvier, in E. Geoffroy and F. Cuvier, 1833, Hist. Nat. Mamm., 7(67) [colored figure and text of a "dauphin à long bec" from Brest, France].—Flower, 1884, Proc. Zool. Soc. London, 1883: 482, fig. 6 (palate) [taxonomy; characters; history of type; synonyms: planiceps Van Breda, frontatus Cuvier (part)].

Steno rostratus, Lutkin, 1889, Vid. Selsk, Skrif., (6), Nat. Math., Afd. Copenhagen, 5(1): 8, 54, pl. 1 (animal, skeleton), text figs. (sternum,

flippers) [characters; synonyms; bredanensis, compressus, reinwardtin, bersbicillatus].—True, 1889, Bull. U.S. Nat. Mus., 36: 24, 157, pl. 6, fig. 1 (animal), fig. 2 (skull) [Indian: Indonesia (Java); S. Atlantic: 1°14′ S., 17°20′ W.; taxonomy; synonyms: frontatus Cuvier (part), bredanensis Lesson, planiceps Schlegel, compressus Gray, reinwardtii Schlegel].—Beddard, 1900, Book of whales, p. 273 [characters; part synonyms].—Van Deinse, 1931, De fossiele en recente Cetacea van Nederland, p. 257 [N. Atlantic: Netherlands].—Weber, 1923, Die Cetaceen der Siboga-Expedition, Siboga Expeditie, 58: 6 [N. Atlantic: 1°14′ S., 17°20′ W.; France (Brest); Netherlands; S. Atlantic: South Africa (Mossel Bay); N. Pacific: U.S.A. (Honolulu, Hawaii); Indonesia (Java)].—Fraser, in Norman and Fraser, 1938, Giant fishes, whales and dolphins, p. 331, fig. 9 (animal) [characters; distribution].—Kellogg, 1940, Nat. Geogr. Mag., 77(1): 69, pl. 11 (animal) [characters; distribution].—Hamilton, 1945, Proc. Zool. Soc. London, 114: 549 [S. Atlantic: off Brazilian coast; coitus observed].—Handley and Patton, 1947, Wild mammals of Virginia, p. 201 [N. Atlantic: U.S.A. (Norfolk, Virginia)].—Cadenat, 1959, Bull. Inst. Français Afrique Noire, 21(A): 1397, pls. 23-25 (animal) [N. Atlantic: Sénégal; Ivory Coast].

Delphinus bredanensis Lesson, 1828, Complément des oeuvres de Buffon, 1(Cétacés): 206 [new name for Delphinus rostratus Cuvier, preoccupied]. Delphinorhynchus bredanensis, Lesson, 1828, Complément des oeuvres de

Buffon, 1(Cétacés): 440 [name combination in index.]

Steno bredanensis, Miller and Kellogg, 1955, Bull. U.S. Nat. Mus., 205: 657 [N. Atlantic: U.S.A. (Tampa, Florida); N. Pacific: U.S.A. (Honolulu, Hawaii; Stimson Beach, Marine County, California)].—Hall and Kelson, 1959, Mammals of North America, p. 819, fig. (animal), fig. 448 (skull) [N. Atlantic: U.S.A. (Virginia to Florida); N. Pacific: U.S.A.: (California)].—Orr, 1965, Journ. Mammal., 46: 101 [S. Atlantic: Ecuador (Indefatigable Island, Galápagos)].

[Steno] bredaensis [sic], Trouessart, 1898, Cat. Mamm., p. 1028 [listed;

emendation].

Delphinus planiceps Van Breda, 1829, Verhandl. Nederl. Inst., p. 235, pls. 1, 2.—Schlegel, 1841, Abhandlungen aus dem Gebiete der Zoologie und vergleichenden Anatomie, 1(Cetaceen): 27, pl. 4, fig. 8 (teeth) [characters; synonyms: frontatus Cuvier (part), rostratus Cuvier, bredanensis Fischer].

Delphinorhynchus santonicus Lesson, 1836, Complément des oeuvres de Buffon, 10: 330 [N. Atlantic: France (type locality; Ile d'Aix, mouth of the Charente River); type a stranded individual, not preserved].— Lesson, 1841, Act. Soc. Linn. Bordeaux, 12: 15, pl. 2, fig. 1 (animal) [characters].

[? Sotalia] santonicus, Trouessart, 1904, Cat. Mamm., Suppl., p. 763 [classification].

- Delphinus Reinwardtii Schlegel, 1841, Abhandlungen aus dem Gebiete der Zoologie und vergleichenden Anatomie, 1(Cetaceen): 27, pl. 3, figs. 2, 3 (skull), pl. 4, fig. 7 (teeth) [Indian: Java (type locality); two cotype skulls in Leiden Museum (cf. Jentink, 1887, Cat. Osteol. Mus. Hist. Nat. Pays-Bas, 9: 173)].
- Delphinus chamissonis Wiegmann, 1841 (or earlier), Schreber's Säugthiere, pl. 359 (animal) [figure without text].—Wagner, 1846, in Schreber, Säugthiere, 7: 366 [no locality; characters].
- Delphinus compressus Gray, 1843, List Mamm. Brit. Mus., p. 105 [nomen nudum].
- Steno compressus Gray, 1846, Zoology of the voyage of H. M. S. Erebus and Terror, 1(Mammalia): 43, pl. 27 (skull) [type in British Museum, a skull only from unknown locality]; 1850, Cat. Mamm. Brit. Mus., Cetacea, p. 129 [South Sea]; 1886, Cat. seals and whales Brit. Mus., p. 234 [characters].
- [?] Steno fuscus Gray, 1846, Zoology of the voyage of H.M.S. Erebus and Terror, 1(Mammalia): 44, pl. 26, fig. 1 (foetus and tongue) [N. Atlantic: Cuba (type locality); type a foetus in spirits presented to British Museum by W. S. MacLeay].—True, 1889, Bull. U.S. Nat. Mus., 36: 27 [resembles Prodelphinus obscurus or Steno bredanensis but not certainly identifiable; type believed to be lost].
- D[elphinus] oxyrhynchus Gray, 1850, Cat. Mamm. Brit. Mus., Cetacea, p. 131 [name in synonymy of "Steno? rostratus" erroneously attributed to Jardine (1837, Nat. Libr., pl. 27, with caption Delphinorhynchus of Breda)].
- Delphinus (Steno) perspicillatus Peters, 1876, Monatsb. Akad. Wiss. Berlin, p. 360, pl. 2 (animal), pl. 3 (skull, flipper, sternum) [S. Atlantic (type locality: 32°29′ S., 2°1′ W.); type a skeleton in the Berlin Museum, collected Sept. 20, 1874].—Flower, 1884, Proc. Zool. Soc. London, 1883: 486 ["if it is not specifically identical with, it is certainly very closely allied to Steno rostratus"].
- Steno perspicillatus, True, 1889, Bull. U.S. Nat. Mus., 36: 25, 30, 32,157, pl. 7, fig. 1 (animal), fig. 2 (skull) [regarded as near but distinct from Steno rostratus Desmarest].—Lahille, 1899, Primera reunión del congreso latinoamericano, 3: 199 [S. Atlantic: Argentina (Buenos Aires?);] 1905, Rev. Jardín Zool., Buenos Aires, 1905: 58 [S. Atlantic: 32°29′ S., 2°1′ W.; characters]; 1914 Enumeración y zoogeografía Mamm. República Argentina, p. 199 [S. Atlantic].
- Delphinus frontatus, Cuvier (part, not Cuvier), 1823, Recherches sur les ossemens fossiles, 5: 278 [skull only, mismatched with skin of *Inia geoffrensis* Blainville].
- Steno frontatus, Blyth, 1863, Cat. Mamm. Mus. Asiatic Soc., p. 91.—Blanford, 1891, Fauna British India, p. 582 [Indian: Nicobar Islands. Bay of Bengal].

Stenopontistes zambezicus Miranda Ribeiro, 1936, Bol. Mus. Nac. Rio de Janeiro, 12: 20, 42, pl. (animal) [Indian: Mozambique (Zambesi)].

Type: Name based on a drawing by Van Breda of a stranded dolphin, the skull of which had first been matched with a skin of *Inia geoffrensis* Blainville and named *Delphinus frontatus* Cuvier.

Type locality: Coast of France.

DISTRIBUTION: The same as for the genus.

#### Genus SOTALIA Gray

Sotalia Gray, 1866, Cat. seals and whales Brit. Mus. (March 1866), p. 401; 1871, Proc. Zool. Soc. London, 1870: 772 [characters].—Flower, 1884, Proc. Zool. Soc. London, 1883: 486 [taxonomic revision].—True, 1889, Bull. U.S. Nat. Mus., 36: 13 [taxonomy; guianensis Van Bénéden, type].—Beddard, 1900, Book of whales, p. 267 [characters; species].—Fraser, in Norman and Fraser, 1938, Giant fishes, whales and dolphins, p. 333 [characters].

Sousa Gray, 1866, Proc. Zool. Soc. London (September), 1866: 213 [subgenus of Steno Gray; included species: Steno capensis Gray (=Stenella dubia G. Cuvier), Steno lentiginosus Gray (type, cf. Iredale [and Troughton, 1934, Mem. Australian Mus., 6:67)].

Tucuxa Gray, 1866, Proc. Zool. Soc. London (September), 1866: 213 [subgenus of Steno Gray; type species: Steno tucuxi Gray, by monotypy].

Type species: Delphinus guianensis P. J. Van Bénéden by monotypy.

DISTRIBUTION: Tropical seas and larger rivers of South America; Africa (Cameroon River); Bay of Bengal, Arabian Sea, Persian Gulf, and Red Sea to Suez Canal; Gulf of Siam and coast of Borneo, southeastern China (coast, Amoy Harbor, Canton, and Fuchow Rivers).

Sotalia fluviatilis Gervais and Deville

Delphinus fluviatilis Gervais and Deville, in Gervais, 1853, Bull. Soc. Agric. Hérault, p. 148 [work not seen].—Gervais, 1855a, Hist. Mamm., 2: 322 [Peru (Río Marañon, above Pebas)].—1855b, Castelnau Expéd. Amérique Sud, pt. 7, Zool., Mamm., p. 92, pl. 19, fig. 2 (animal) [local names: "bufo negro" of upper Amazon, "boto preto" of Brazil; habits]; 1856a, Compt. Rend. Acad. Sci., Paris, 42: 806 [Rio Amazonas]; 1856b, Ann. Mag. Nat. Hist., (2), 17: 522 [Rio Amazonas].—Van Bénéden, 1875, Mém. Acad. Roy. Belgique, 41: 4 [local names: "bufeo negro," "bofo preto"].

Steno? fluviatilis, Gray, 1866, Cat. seals and whales, Brit. Mus., pp. 237,

395 [may be same as S. tucuxi].

S[teno] fluviatilis, Gray, 1870, Ann. Mag. Nat. Hist., (4), 6: 392 ["upper Amazonas"].

Sotalia fluviatilis, Van Bénéden and Gervais, 1880, Ostéographie des cétacés, p. 595, ftn. 2 [characters; Sotalia pallida a synonym].—True,

1889, Bull. U. S. Nat. Mus., 36: 17, 156, pl. 5, fig. 1 (animal) [taxonomic review].—Fraser, *in* Norman and Fraser, 1938, Giant fishes, whales and dolphins, p. 334 [characters].—Carvalho, 1961, Rev. Biol. Trop. 9(1): 9 [Brazil (Rio Mucujai, upper Rio Branco, Rio Branco)].

S[otalia] fluviatilis, Hershkovitz, 1963, Journ. Mammal., 44: 99 [distribution].

[Sotalia tucuxi] fluviatilis, Trouessart, 1904, Cat. Mamm., Suppl., p. 763 [classification].

Delphinus pallidus Gervais, 1855, Castelnau Expéd. Amérique Sud, 7(Zool., Mamm.): 94, pl. 19, figs. 1–2 (animal) [Peru (type locality: Nauta, Río Marañon, Loreto); local name: "bufo blanco"]; 1856a, Comp. Rend. Acad. Sci. Paris, 42: 806 [Brazil (Rio Amazonas)]; 1856b, Ann. Mag. Nat. Hist., (2), 17: 522 [Brazil (Rio Amazonas)].

Steno? pallidus, Gray, 1866, Cat. seals and whales Brit. Mus., p. 237 [characters].

S[teno] pallidus, Gray, 1870, Ann. Mag. Nat. Hist., (4), 6: 392 [Brazil (upper Amazon)].

Sotalia pallida, Van Bénéden and Gervais, 1880, Ostéogr. Cétacés, p. 595 [comparisons; regarded as a synonym of S. fluviatilis].—True, 1889, Bull. U.S. Nat. Mus., 36: 17, 156, pl. 4, figs. 1, 2 [Brazil (mouth of Rio Negro); Peru (Nauta); taxonomic review].—Cabrera and Yepes, 1940, Mamíferos sudamericanos, p. 295 [characters; habits; local names: "tucuxi," "pirayaguara"].—Fraser, in Norman and Fraser, 1938, Giant fishes, whales and dolphins, p. 334 [characters; may be color variety].—Sanchez Romero, 1960, Pesca y caza, 10: 38 [Peru (Cocha Zapote, Río Pacaya, Loreto, 5°30' S., 75° W.)].—Carvalho, 1961, Rev. Biol. Trop., 9(1): 9, ftn. [type regarded as a composite of Inia skin and Sotalia skull].

S[otalia] pallida, Flower, 1884, Proc. Zool. Soc. London, 1883: 513 [classification].

[Sotalia tucuxi] pallidus, Trouessart, 1904, Cat. Mamm., Suppl., p. 763 [classification].

Steno Tucuxi Gray, 1856, Ann. Mag. Nat. Hist., (2), 18: 158 [Brazil (type locality: Rio Amazonas near Santarém, Pará); types, male and female skulls, British Museum (Natural History)].

Steno tucuxi, Gerrard, 1862, Cat. bones Brit. Mus., p. 159 [Brazil: Rio Amazonas; skulls of type].—Bates, 1863, Naturalist on the river Amazons, 1: 146 [Brazil (Rio Tocantins, mouth)].—Gray, 1866, Cat. seals and whales Brit. Mus., p. 236 [Brazil (Rio Amazonas, near Santarém)].—Van Bénéden, 1875, Mém. Acad. Roy. Belgique, 41: 4 [pallidus Gervais a synonym].—Pelzeln, 1883, Verh. K. K. Zool.-Bot. Gesellsch., Wien, Beih., 33: 94 [Brazil (Barra do Rio Negro); synonyms: fluviatilis, pallidus].

S[otalia] tucuxi, Flower, 1884, Proc. Zool. Soc. London, 1883: 513 [classi-

fication].

Sotalia tucuxi, True, 1889, Bull. U.S. Nat. Mus., 36: 17, 155, pl. 5, fig. 2 (skull of type) [taxonomic review; skull in U.S. National Museum said to be from Florida].-Fraser, in Norman and Fraser, 1938, Giant fishes, whales and dolphins, p. 334 [characters; may be color variety].

Sotalia tucuxi or S. fluviatilis, Austen, 1897, Proc. Zool. Soc. London, 1896: 771 [Brazil (Paraná de Buyassu, channel below Monte Alegre); color; habits].

[Steno (Sotalia)] tucuxi, Trouessart, 1898, Cat. Mamm., p. 1027 [classification].

Steno Tucaxi [sic], Van Bénéden and Gervais, 1880, Ostéographie des Cétacés, p. 595, ftn. 2 [lapsus for tucuxi].

Delphinus tuchuschi, Van Bénéden and Gervais, 1880, Ostéographie des Cétacés, p. 595, ftn. 2 [ms. name attributed to Natterer].

Sotalia sp., Layne, 1958, Journ. Mammal., 39: 1, pl. 1 (animal), pl. 2 (skull) [Colombia (Leticia, Río Amazonas); characters; comparisons; variation; habits; fluviatilis, tucuxi, and pallidus probably conspecific].

Type: Skin and anterior portion of skull, Muséum National d'Histoire Naturelle, Paris.

Type locality: Río Marañon above Pebas, Loreto, Peru.

DISTRIBUTION: Rio Amazonas and lower parts of its tributaries between the Rio Tocantins, Pará, Brazil, and the Río Huallaga, Loreto, Peru.

## Sotalia guianensis P. J. Van Bénéden

Delphinus Guianensis P. J. Van Bénéden, 1864, Mém. Cour. Acad. Roy. Bruxelles, Coll., 16(2): 27, fig. p. 31 (sternum), fig. p. 33 (flipper), fig. p. 34 (ear bone), pl. 2 (skeleton).

Tursio? Guianensis, Gray, 1866, Cat. seals and whales Brit. Mus., p. 257 [British Guiana].

Sotalia Guianensis, Gray, 1866, Cat. seals and whales Brit. Mus., p. 401 [characters].

Delphinus (Sotalia) Guianensis, Van Bénéden, 1868, Bull. Acad. Roy. Sci. Belgique, 25: 115 [two cotype skeletons in Louvain Museum].

Sotalia guianensis, Gray, 1871, Suppl. Cat. seals and whales Brit. Mus., p. 67 [British Guiana].—Van Bénéden and Gervais, 1880, Ostéographie des Cétacés, p. 595, pl. 41, figs. 1-17 (skeleton) [characters; comparisons].-True, 1889, Bull. U.S. Nat. Mus., 36: 17, 155 [review; said to be from Cayenne; distinction from other American Sotalia questioned].—Beddard, 1900, Book of whales, p. 270 [characters; brasiliensis Van Bénéden regarded as a synonym].—Kükenthal, 1909, Jenaische Zeitschr., 45: 581 [penis of embryo].—Kükenthal, 1914, Jenaische Zeitschr., 51: 90, pl. 3b, fig. 37 (animal) [characters].—Williams, 1928, Zoologica, 7: 105, figs. 35–37a (animal), figs. 37b–45 (skeleton, teeth) [British Guiana (lower Essequibo, Cuyuni, and Mazaruni Rivers; type locality: Maroni River, on Suriname and French Guianan boundary); type in Stuttgart Museum, collected by Kappler; characters; food; habits].—Slijper, 1936, Die Cetaceen, Vergleichen anatomisch und systematisch (in text) [comparative anatomy; embryology; phylogeny; systematics]; 1938, Bull. Mus. Roy. Hist. Nat. Belgique, 14(10): 19 [history of types].—Fraser, in Norman and Fraser, 1938, Giant fishes, whales and dolphins, p. 334 [part; "northeast coast of South America" only; characters].—Cabrera and Yepes, 1940, Mamíferos sudamericanos, p. 295 [characters].—Kellogg, 1940, Nat. Geogr. Mag., 77(1): 89, pl. 23 (animal) [characters; distribution].—Hershkovitz, 1963, Journ. Mamm., 44: 99 [N. Atlantic: Venezuela (Lake Maracaibo)].

[Steno (Sotalia)] guianensis, Trouessart, 1898, Cat. Mamm., p. 1027 [classification].

Delphinus Guyanensis [sic], P. J. Van Bénéden, 1868, Bull. Acad. Roy. Sci. Belgique, 25: 96 [one cotype skeleton in Brussels Museum].— E. Van Bénéden, 1875, Mem. Acad. Roy. Sci., Belgique, 41: 8, 43 [Suriname (type locality: mouth of Suriname River); characters; comparisons].

"Tonina," Humboldt, 1889, Personal narrative of travels to the equinoctial regions of America (Ross, transl.), 1: 160; 2: 142, 164, 342, 350 [Venezuela (Río Manzanares, Cumaná; San Fernando de Apuré, Río Apuré; Río Atabapo and tributary Río Temi)].

Types: Three of several skeletons received by the Würtemburg Naturaliensammlung, Stuttgart. According to Williams (1928, Zoologica, 7: 105), a female (skin, skeleton, and foetus) is believed to be one of the original series and is still preserved in the Stuttgart Museum as no. 1122. However, Slijper (1938, Bull. Mus. Hist. Nat. Belgique, 14 [10]: 19) states that 3 cotypes originally were received by the Stuttgart Museum and then presented to P. J. Van Bénéden, who gave one to the Belgian Museum. The remaining two specimens are now in the Louvain Museum. They were collected in 1858 by Kappler (see also Van Bénéden, 1868, Bull. Acad. Roy. Sci. Belgique, 25: 96, 115).

Type locality: Suriname (p. 27, original description), Guiane (p. 34), Cayenne (p. 35); restricted to mouth of Suriname River by E. Van Bénéden (1875, Mém. Acad. Roy. Belgique, 41: 8, 43). Williams (supra cit.) states that, according to records of the Stuttgart Museum, the actual collecting locality is the Maroni or Marowijne River on the eastern border of Suriname.

DISTRIBUTION: Coast and rivers of the Guianas and Venezuela, including Lake Maracaibo.

#### Sotalia brasiliensis E. Van Bénéden

Sotalia brasiliensis E. Van Bénéden, 1875, Mém. Acad. Sci. Roy. Belgique, 41: 1, 8 (name), 9 (description), pl. 1 (animal, postcranial skeleton), pl. 2 (skull, osteological parts) [characters; habits].

Sotalia brasiliensis, Van Bénéden and Gervais, 1880, Ostéographie des cétacés, p. 694 [characters; comparisons; Delphinus microps Gray regarded as a synonym].—Flower, 1884, Proc. Zool. Soc. London, 1883: 488 [pallidus Gervais and tucuxi Gray doubtfully distinct].—Goeldi, 1887, Zool. Jahrb., Jena, Syst. Abt., 3: 134, text figs. (sternum) [S. Pacific: Brazil (Bahia de Rio de Janeiro); osteology].—True, 1889, Bull. U.S. Nat. Mus., 36: 17, 155, pl. 3, fig. 1 (animal), fig. 2 (skull); characters; comparisons; distinction from other American species of Sotalia questioned].—Beddard, 1900, Book of whales, p. 270 [regarded as identical with guianensis].—Cabrera and Yepes, 1940, Mamíferos sudamericanos, p. 294 [characters; habits; distribution].

[Steno (Sotalia)] brasiliensis, Trouessart, 1898, Cat. Mamm., p. 1028 [classification].

Sotalia braziliensis [sic], Racovitza, 1903, Expédition Antarctique Belgique, pp. 44, 59 [Brazil (Rio de Janeiro)].

D[elphinus] guianensis, Flower (part, not P. J. Van Bénéden), 1884, Proc. Zool. Soc. London, 1883: 488 [S. Atlantic: Brazil (Rio de Janeiro); characters].

Sotalia guianensis, Fraser (not P. J. Van Bénéden), in Norman and Fraser, 1938, Giant fishes, whales and dolphins, p. 336 [S. Atlantic: Brazil (Rio de Janeiro)].—Scheffer and Rice, 1963, U.S. Fish and Wildlife Serv., Spec. Sci. Rep., 431: 7 [part; S. brasiliensis treated as a synonym].

[?] Delphinus geoffrensis, Blainville (part, not Blainville), 1817, Nouv. Dict. Hist. Nat., 9: 152 [individual seen by M. Fréminville on the coast of Brazil].

[?] Sotalia [sp.], Carvalho, 1961, Rev. Brasil. Biol., 21(4): 444 [S. Atlantic: Brazil (Santos; São Paulo)].

Type: Originally a complete specimen but presumably now represented by skin and complete skeleton; in the Louvain Museum; collected by E. Van Bénéden.

Type locality: Baía de Rio de Janeiro, Brazil.

DISTRIBUTION: Known with certainty only from the Baía de Rio de Janeiro, Brazil, but range may extend southwest along coast at least as far as Santos, São Paulo.

#### Sotalia chinensis Osbeck

Delphinus chinensis Osbeck, 1765, Reise nach Ostindien und China, Rostock, 1: 7.—Bonnaterre, 1789, Tabl. Encycl. Meth., Cétologie, p. 21 [in synonymy of Delphinus delphis; characters].—Blainville, 1817, in Desmarest, Nouv. Dict. Hist. Nat., 9:158 [characters].

D[elphinus] chinensis, Gray, 1850, Cat. Mamm. Brit. Mus., Cetacea, p. 132 [listed].

Steno chinensis, Gray, 1871, Suppl. Cat. seals and whales Brit. Mus., p. 65 [classification].

Sotalia chinensis, G. M. Allen, 1938, Mammals of China and Mongolia, 1: 499 [N. Pacific: China (Amoy Harbor; Quemoy; Yangtze River to Hankow)].—Hershkovitz, 1961, Fieldiana, Zool., 39: 553 [nomenclature].

Delphinus sinensis Desmarest, 1822, Mammalogie, p. 514 [characters ex Osbeck].—Cuvier, 1836, Hist. Nat. Cétacés, p. 213 [China (Canton River); characters ex Osbeck].— Flower, 1870, Trans. Zool. Soc. London, 7:151, pl. 17, fig. 2 (skull) [species inquirendum].

Sotalia sinensis, True, 1889, Bull. U.S. Nat. Mus., 36:153, pl. 1, fig. 3 (skull) [N. Pacific: China (Amoy Harbor; Canton River; Fuchow

River)].

[Sotalia sinensis], Harrison, 1960, Malaya Nat. Journ., 14: 89 [N. Pacific: Sarawak].

Type: None preserved; original description based on live animals observed in habitat.

Type locality: Canton River.

DISTRIBUTION: China seas, from Sarawak north along the Chinese coast and into the Canton and Fuchow Rivers, and 750 miles up the Yangtze, at least as far as Hankow.

## Sotalia borneensis Lydekker

Sotalia borneensis Lydekker, 1901, Proc. Zool. Soc. London, 1901: 88, pl. 8 (animal), fig. 11 (skull).—Gibson Hill, 1949, Malayan and Nature Journ., 4: 58 ["Sarawak to Siam"]; 1950, Sarawak Mus. Journ., 5: 294 [S. Pacific: Sarawak].

Sousa borneensis, Fraser and Purves, 1960, Bull. Brit. Mus. (Nat. Hist.), Zool., 7: pl. 25 (skull) [auditory system].

Type: Skeleton, British Museum (Natural History) captured Sept. 11, 1900, and purchased from E. Hose.

Type locality: Sipang, mouth of Sarawak River, Sarawak, Malaysia. Distribution: South China Sea from Sarawak to Gulf of Thailand.

# Sotalia lentiginosa Gray

Steno [(Sousa)] lentiginosus, Gray, 1866, Proc. Zool. Soc. London, 1866: 213 [name and description from Owen, 1866, unpublished (see below)].

Delphinus (Steno?) lentiginosus Owen, 1866, Trans. Zool. Soc. London, 6: 20, pl. 5, figs. 2, 3 (animal) [description of type].

S[otalia] lentiginosus, Flower, 1884, Proc. Zool. Soc. London, 1883: 489, 513 [characters; classification].

Sotalia lentiginosus, Flower, 1885, List Cetacea Brit. Mus., p. 33 [type history].—True, 1889, Bull. U.S. Nat. Mus., 36: 15, 155, pl. 2, fig. 3

(skull) [characters].

Sotalia lentiginosa, Deraniyagala, 1945, Spolia zeylanica, 24: 119, pl. 16 (animal) [Indian: Ceylon; external characters].—Barnard, 1954, Guide book to South African whales and dolphins, 4: 31 [skull in South African museum said to have been picked up on beach at Muizenberg, False Bay, South Africa, 1896].—Tietz, 1963, Ann. Cape Prov. Mus., 3: 68, fig. 1 (animal), figs. 2–3 (skull) [Indian: South Africa (Plettenburg Bay; Alagoa Bay); characters; comparisons].

Steno lentiginosus, Blanford, 1891, Fauna British India, p. 584, fig. 190 (animal) [Indian: India (Vizagapatam; Alibág, near Bombay);

Ceylon (Aripo)].

Sousa lentiginosa, Iredale and Troughton, 1934, Mem. Australian Mus.,

6: 68 ["?Queensland," Australia].

Sotalia fergusoni Lydekker, 1903, Journ. Bombay Nat. Hist. Soc., 15: 411, pl. D (animal) [Indian: India (type locality: Trivandrum Beach, Madras, southern India); name based on a drawing and description supplied by Harold Ferguson, director of the Travancore Museum; type skeleton in British Museum].—Lydekker, 1909, Proc. Zool. Soc. London, 1908: 808 [a synonym of S. lentiginosus].

Type: Figure of entire animal and skull in British Museum (Natural History), no. 1476a–66.2.5.2, presented by Sir Walter Elliot.

Type locality: Waltair, Vizagapatam, Madras, Bay of Bengal, India. Distribution: Bay of Bengal from Madras to Ceylon, west to South Africa, and questionably included among the cetaceans of Australian waters.

# Sotalia plumbea G. Cuvier

Delphinus plumbeus G. Cuvier, 1829, Règne animal, ed. 2, 1: 288, ftn.—Pucheran, 1856, Rev. Mag. Zool., (2), 8: 145, 315, 362, 449 [characters].

Sotalia plumbeus [sic], Flower, 1884, Proc. Zool. Soc. London, 1883: 489,

513 [characters; classification].

Sotalia plumbea, True, 1889, Bull. U.S. Nat. Mus., 36: 21, 153, pl. 1, figs. 1, 2 (animal, skull) [characters; classification].—Bruyns, 1960, Malayan Nat. Journ., 14: 159, figs. pp. 164–5 (animal) [Indian: Arabian Sea, Persian Gulf, Gulf of Aden, Red Sea, Suez Canal; habits; local name: "darfeel" (Kuwait)].—Harrison, 1960, Malayan Nat. Journ., 14: 87 [N. Pacific: South China Sea (Sarawak)].

Steno plumbeus, Blanford, 1891, Fauna British India, p. 583 [Indian:

India (Madras, Malabar, Karachi; Burma; Ceylon].

Sousa plumbea, Fraser and Purves, 1960, Bull. Brit. Mus. (Nat. Hist.), Zool., 7: 60 et seq., fig. 18 (pterygoid sinus), fig. 23 (air sac system) [auditory system].

Type: Skull, Muséum National d'Histoire Naturelle, Paris, no. a 3053; collected by Dussumier.

Type locality: Malabar, India, Bay of Bengal.

DISTRIBUTION: From the coast of Sarawak in the South China Sea, west through the Straits of Malacca, the Bay of Bengal, and the Arabian and Red Seas to the Suez Canal.

#### Sotalia teuszi Kükenthal

Sotalia tëuszii Kükenthal, 1892, Zool. Jahrb. Syst., 6: 442, pl. 21 (skull).— Fraser, 1949, Journ. Mammal., 30: 274, pls. 1, 2 (skull) [N. Atlantic: Sénégal; characters].—Cadenat and Paraiso, 1957, Bull. Inst. Français Afrique Noire, 19(A): 324, fig. 1 (head), figs. 2, 3 (animal) [N. Atlantic: Sénégal; characters; piscivorous not herbivorous as claimed by Kükenthal].—Cadenat, 1959, Bull. Inst. Français Afrique Noire, 21(A): pls. 20–22 (animal) [N. Atlantic: Sénégal; stomach contents fish; definitely not herbivorous].

Type: Skull, presumably in the Jena Natural History Museum; presented by Edward Tëusz.

Type locality: Bay of Warships, Cameroons, West Africa.

DISTRIBUTION: West African coast and mouths of rivers from Sénégal to Cameroons.

## Genus STENELLA Gray

Clymene Gray, 1864, Proc. Zool. Soc. London, 1864: 237 [subgenus of Delphinus Linnaeus; type species: D. euphrosyne Gray, by monotypy; generic name preoccupied by Clymene Lamarck, 1818, a polychaete, and by Savigny, 1822, a polychaete].

Stenella Gray, 1866, Proc. Zool. Soc. London, 1866: 213 [subgenus of Steno Gray; type species: Steno attenuatus Gray, by monotypy].— Fraser and Purves, 1960, Bull. Brit. Mus. (Nat. Hist.), Zool., 7: 59 et seq., fig. 26 (table) [auditory system; classification].

Euphrosyne Gray, 1866, Proc. Zool. Soc. London, 1866: 214 [subgenus of Clymene Gray; included species: C. microps Gray, C. alope Gray, C. euphrosyne Gray (type by tautonomy); name preoccupied by Euphrosyne Miegen, 1800, a genus of Diptera].

Clymenia Gray, 1868, Synopsis of whales and dolphins Brit. Mus., p. 6 [emendation of Clymene Gray, 1864; generic name preoccupied by Clymenia Savi, 1817, a genus of Vermes and Munster, 1834, a mollusk, and Orsted, 1844, a worm].—Flower, 1884, Proc. Zool. Soc. London, 1883: 495, 499, 512 [taxonomy; type species: Delphinus longirostris Gray].

Micropia Gray, 1868, Synopsis whales and dolphins Brit. Mus., p. 6 [subgenus of Clymenia; type species: Clymenia stenorhyncha Gray (=Delphinus microps Gray), by virtual tautonomy and monotypy].

Prodelphinus Gervais, in Van Bénéden and Gervais, 1880, Ostéographie des cétacés, p. 604 [substitute for Clymenia Gray, 1868].—Flower, 1884, Proc. Zool. Soc. London, 1883: 418 [taxonomy].—True, 1889, Bull. U.S. Nat. Mus., 36: 61, 162 [taxonomy].—Winge, 1942, Interrelat. Mamm. Gen., 3: 251, 286 [characters; relationships].

Fretidelphis Iredale and Troughton, 1934, Mem. Australian Mus., 6: 65 [type species: Delphinus roseiventris Wagner (=Delphinus longirostris

Gray), by original designation].

Type: Steno attenuatus Gray, by monotypy.

DISTRIBUTION: Cold to tropical waters of the Atlantic (including the Mediterranean) and Pacific; from Greenland and Bering seas to the coastal waters of Cape of Good Hope, Cape Horn, and Australia; Indian Ocean.

## Stenella asthenops Cope

Delphinus asthenops Cope, 1865, Proc. Acad. Nat. Sci. Philadelphia, pp. 200, 201.

Clymenia esthenops [sic], Gray, 1871, Suppl. Cat. seals and whales Brit.

Mus., p. 72 [classification].

Clymenia aesthenops [sic], Dall, in Scammon, 1874, Marine mammals of the north-western coast of North America, p. 267 [type "skull only, Mus. Peabody Academy of Science, Salem, Mass."].

Types: Two skulls, Academy of Natural Sciences nos. 595, 596.

Type locality: Unknown. Distribution: Unknown.

# Stenella clymene Gray

Delphinus Metis Gray, 1846, Zoology of the voyage of H. M. S. Erebus and Terror, 1(Mammalia): 39, pl. 18 [type a skull only without data, in British Museum; not D. metis Gray, no. 1, of page 38].

Delphinus Clymene Gray, 1850, Cat. Mamm. Brit. Mus., Cetacea, p. 115 [renaming of D. metis, no. 2, in Gray, 1846, Zoology . . . Erebus and Terror, 1: 39 (not no. 1 or fig.); no locality]; 1866, Cat. seals and whales

Brit. Mus., p. 249 [characters].

Delphinus clymene, Flower, 1884, Proc. Zool. Soc. London, 1883: 498 [D. dubius group; normalis Gray a synonym].—Fraser, 1950, Atlantide Rep., no. 1, p. 66 [regarded as distinct from Stenella doris (=Stenella frontalis)].

[Prodelphinus] clymene, Trouessart, 1898, Cat. Mamm., p. 1034 [classifi-

cation].

Clymene normalis Gray, 1866, Proc. Zool. Soc. London, 1866: 214 [new name for Delphinus Clymene Gray].

Clymenia normalis, Gray, 1868, Synopsis whales and dolphins Brit. Mus., p. 6 [classification]; 1871, Suppl. Cat. seals and whales Brit. Mus., p. 70 [characters; same as clymene Gray].

Prodelphinus normalis, Trouessart, 1898, Cat. Mamm., p. 1036.

Type: Skull only, British Museum (Natural History), no. 350a.

Type locality: Unknown. Distribution: Unknown.

## Stenella coeruleoalbus Meyen

Delphinus cœruleo-albus Meyen, 1833, Nova Acta Acad. Cesareae Nat. Curios., 16(2): 609, 610, pl. 43, fig. 2 (animal).—Wagner, 1846, Schreber's Säugthiere, 7: 336, pl. 363 (animal), pl. 364 (skull) [characters].

Delphinus caruleo-albus [sic], Gray, 1846, Zoology of the voyage of H. M. S. Erebus and Terror, 1(Mammalia): 42 [characters].—Philippi, 1893, Anal. Mus. Nac. Chile (1), Zool. (6), pl. 1, fig. 1 (animal, ex Meyen) [characters].

Lagenorhynchus cæruleo-albus [sic], Gray, 1850, Cat. Mamm. Brit. Mus., Cetacea, p. 100 [S. Pacific: Argentina (Río de La Plata)].—Cassin, 1858, U.S. Exploring Expedition, 1838–42, 1(Mammalia): 31; Atlas, pl. 6, fig. 2 (animal) [Pacific; Delphinus albirostratus Peale 1848 a synonym].—Gray, 1866, Cat. seals and whales Brit. Mus., p. 268 [characters; Delphinus albirostratus Peale a synonym].

Lagenorrhynchus [sic] cæruleo-albus [sic], Burmeister, Anal. Mus. Publ., Buenos Aires, 1: 307 [S. Atlantic: Argentina].

Prodelphinus caruleo-albus, True, 1889, Bull. U.S. Nat. Mus., 36: 62, 163, pl. 14, fig. 1 (animal), fig. 2 (skull) [taxonomy; characters of type skull; resembles P. euphrosyne and P. doris].—Figueira, 1894, Anal. Mus. Nac. Montevideo, 3: 11 (separate) [S. Atlantic: Uruguay; Argentina (Río de La Plata)].—Lahille, 1899, Primera reunión del Congreso Latinoamericano, 3: 200 S. Atlantic: Argentina (Río de La Plata)].—True, 1903, Proc. Biol. Soc. Washington, 16: 143 [taxonomy].— Okada, 1936, Sci. Rep. Tokyo Univ. Lit. Sci., Sect. B, 3(44): 1-16, figs. 1-5 (skeleton), pl. 1 (animal), pls. 2-4 (skeleton) [N. Pacific: Japan (fish markets of Tokyo, Chuba-ken, Shizuoka-ken); characters; synonyms: stylx [sic] Gray, dorcides Gray, marginatus Pucheran].— Fraser, in Norman and Fraser, 1938, Giant fishes, whales and dolphins, p. 333 [characters].—Cabrera and Yepes, 1940, Mamíferos sudamericanos, p. 296 [characters].—Bobrinski, 1944, Mammals of U.S.S.R., p. 216, fig. 145 (animal ex Meyen), fig. 146 (skull ex Meyen) [N. Pacific: U.S.S.R.: Siberial.

Stenella cæruleo-albus [sic], Tomilin, 1957, Mammals of eastern Europe and northern Asia, 9(Cetacea): 554, fig. 96 (animal), fig. 97 (skull), fig. 98 (pectoral limb bones, sternum) [characters; taxonomy; synonyms: Delphinus euphrosyne Gray, D. styx Gray, D. tethyos Gervais, Tursio dorcides Gray, Clymene dorides Gray, Delphinus marginatus Duvernoy

in Pucheran].—Nishiwaki and Kamiya, 1958, Sci. Rep. Whales Res.

Inst., 13: 54 [N. Pacific: Japan].

Stenella cæruleo-albus [sic] cærulo-albus [sic], Tomilin, 1957, Mammals of eastern Europe and northern Asia, 9(Cetacea): 561 ["oceans of the far east"].—Tomilin, 1962, Cetacea of the U.S.S.R., Fauna U.S.S.R., 79: 155, fig. 48 (skull) [N. Pacific: Kuriles, Japan, Canada, U.S.A. (Washington, Oregon); S. Pacific: New Zealand].

Stenella cæruleoalbus, Scheffer, 1960, Murrelet, 31(2): 23 [N. Pacific:

U.S.A. (Olympia, Washington); classification].

Stenella cæruleoalba, Scheffer and Rice, 1963, U.S. Fish and Wildlife Serv., Spec. Sci. Rep., 431: 6 [listed].

Delphinus Styx Gray 1846, Zoology of the voyage of H. M. S. Erebus and Terror, 1(Mammalia)(3): 39, pl. 2 (skull) [S. Atlantic: South Africa (type locality); type a skull only, formerly in the museum of the Royal United Service Institution and figured by Gray (1868, Synopsis whales Brit. Mus., pl. 21), now lost (cf. True, 1889, Bull. U.S. Nat. Mus., 36: 63)]; 1850, Cat. Mamm. Brit. Mus., Cetacea, p. 117 [S. Atlantic: West Africa; type skull, collected by W. T. W. Owen, in Museum of the United Service Institution]; 1866, Cat. seals and whales Brit. Mus., p. 250 [characters; "may prove to be only a variety" of euphrosyne Gray].

Clymenia Styx, Gray, 1868, Synopsis whales and dolphins, Brit. Mus., p. 6, pl. 21 (skull) [characters]; 1871, Suppl. cat. seals and whales Brit.

Mus., p. 70 [Atlantic: West Africa; N. Pacific].

Stenella Styx, Ellerman and Morrison-Scott, 1951, Checklist of Palaearctic and Indian Mammals 1758 to 1946, pp. 732–733 [taxonomic notes; distribution].—Miller and Kellogg, 1955, Bull. U.S. Nat. Mus., 205: 657 [N. Atlantic: South Greenland to Jamaica; N. Pacific: Bering Sea to 10 miles south of Columbia River, Oregon].

Delphinus Euphrosyne Gray, 1846, Zoology of the voyage of H. M. S. Erebus and Terror, 1(Mammalia): 40, pls. 22, 31 (skull) [type a skull only in the museum of the College of Surgeons, London]; 1850, Cat. Mamm. Brit. Mus., Cetacea, p. 117 [characters of several skulls without data]; 1866, Cat. seals and whales Brit. Mus., p. 251 [N. Atlantic: England; S. Atlantic: Argentina (Rio de La Plata, mouth, Buenos Aires); characters; synonyms: Delphinus holbölli Eschricht, D. styx Gray].

Clymene euphrosyne, Gray, 1866, Proc. Zool. Soc. London, 1866: 214 [classification].

Clymenia Euphrosyne, Gray, 1868, Synopsis whales and dolphins, Brit. Mus., p. 6, pls. 22, 31 (skulls) [characters]; 1871, Suppl. Cat. seals and whales Brit. Mus., p. 70 [N. Atlantic; North Sea].—Flower, 1884, Proc. Zool. Soc. London, 1883: 497, 512 [taxonomy; characters; history of types; synonyms: Delphinus styx Gray, Clymenia euphrosynoides Gray,

Tursio dorides Gray, Clymenia marginatus Duvernoy (in Pucheran), Delphinus tethyos Gervais].

- Prodelphinus euphrosyne, Flower, 1885, List Cetacea Brit. Mus., p. 29 [skull of D. euphrosyne "var. rather smaller" of Gray (1846, Zoology . . . Erebus and Terror, 1: 40, pl. 31)=type of Clymenia euphrosynoides].—True, 1889, Bull. U.S. Nat. Mus., 36: 63, 67, 163, pl. 15, fig. 1 (animal), fig. 2 (skull) [Atlantic: Greenland; Great Britain (Shetland and Orkney Islands); France; Mediterranean Sea; Jamaica; between St. Paul and Ascencion Islands; South Africa; characters; taxonomy; synonyms: styx Gray, tethyos Gervais, marginatus Pucheran, dorcides Gray, dorides Gray, euphrosynoides Gray].—Beddard, 1900, Book of whales, p. 260 [characters; synonymy].—Fraser, 1938, in Norman and Fraser, Giant fishes, whales and dolphins, p. 333 [characters].
- Stenella euphrosyne, Oliver, 1922, Proc. Zool. Soc. London, 1922: 582 [S. Pacific: New Zealand].—Norris and Prescott, 1961, Univ. California Publ. Zool., 63: 306 [N. Pacific: U.S.A. (Playa del Rey, Los Angeles Co., California); capture; morphology; comparison with published descriptions of coeruleoalbus].
- P[rodelphinus] c[oeruleo]-a[lbus] euphrosyne, Bobrinski, 1944, Mammals of the U.S.S.R., p. 216 [N. Pacific; classification].
- Stenella caeruleo-albus [sic] euphrosyne, Tomilin, 1957, Mammals of eastern Europe and northern Asia, 9(Cetacea): 561 [N. Atlantic: Baltic and Barents Seas; name for the Atlantic race]; 1962, Cetacea of the U.S.S.R., Fauna U.S.S.R., 79: 155, fig. 48 (skull) [N. Atlantic: Great Britain, Baltic Sea, Mediterranean Sea, Greenland (southwest coast), Canada, Jamaica; S. Atlantic: Ascension Island, South Africa, Argentina].
- [Prodelphinus] euphrosine [sic], Trouessart, 1898, Cat. Mamm., p. 1034 [listed].
- [?] Delphinus Holbollii Eschricht, 1847, Naturf. Möt., Kopenhagen, ex Nilson, 1847, Skand. Fauna, 1: 595 [works not seen, cited ex Gray, 1866, Cat. seals and whales Brit. Mus., p. 251].
- [?] Delphinus albirostratus Peale, 1848, U.S. Exploring Expedition, Mammalia, p. 34 [S. Pacific (type locality: 2°47′5″ S., 174°13′ W.); no specimen in collection].—Poole and Schantz, 1942, Bull. U.S. Nat. Mus., 178: 575 [type lost].
- Delphinus lateralis Peale, 1848, U.S. Exploring Expedition, Mammalia, p. 35, pl. 8, fig. 1 (animal) [N. Pacific (type locality: 13°58′ N., 161°22′ W.); type collected by U.S. Exploring Expedition; type not preserved].
- Lagenorhynchus lateralis, Cassin, 1858, U.S. Exploring Expedition, Mammalia, p. 35, pl. 7, fig. 1 (animal) [characters ex Peale; no specimen in collection].

Prodelphinus (?) lateralis, True, 1889, Bull. U.S. Nat. Mus., 36: 65, 164, pl. 15, fig. 3 (animal) [taxonomy].—True, 1903, Proc. Biol. Soc. Washington, 16: 134 (in text) [comparison with Delphinus amphitriteus Philippi].

Delphinus tethyos Gervais, 1853, Bull. Soc. Agric. Hérault, 40: 150 [N. Atlantic: France (type locality: Valreas, mouth of Orb River); type

a skull only, in Paris Museum].

Orca tethyos, Gerrard, 1865, Cat. Osteol. Brit. Mus., p. 155 [skull].

Prodelphinus tethyos, Gervais, in Van Bénéden and Gervais, 1880, Ostéographie des cétacés, p. 605, pl. 38, fig. 2 (skull) [classification].

Delphinus marginatus Pucheran, 1868, Rev. Mag. Zool., (2), 8: 545 [N. Atlantic: France (type locality: Dieppe); type skull in Paris Museum].

Prodelphinus marginatus, Gervais, in Van Bénéden and Gervais, 1880, Ostéographie des cétacés, p. 605, pl. 38, fig. 1 (skull, ear bones) [classification].

Tursio Dorcides Gray, 1866, Cat. seals and whales Brit. Mus., p. 400 [type locality unknown; type a skull in Brit. Mus., no. 1473a-61.4.1.7].

Clymene dorides Gray, 1866, Proc. Zool. Soc. London, 1866: 241 [new name for Tursio dorcides Gray, 1866].

Clymenia dorides, Gray, 1868, Synopsis whales and dolphins Brit. Mus., p. 6 [classification].

Prodelphinus doreides [sic], Trouessart, 1898, Cat. Mamm., p. 1034 [misspelling; listed].

Clymenia euphrosynoides Gray, 1868, Synopsis whales and dolphins Brit. Mus., p. 6, pl. 31 (skull) [new name for Delphinus euphrosyne Gray].

Clymenia euphrosynoides, Gray, 1871, Suppl. cat. seals and whales Brit. Mus., p. 71 [new name for Delphinus euphrosyne Gray, 1846].

[Prodelphinus] euphrosinoïdes [sic], Trouessart, 1898, Cat. Mamm., p. 1034 [classification].

Clymene similis Gray, 1868, Proc. Zool. Soc. London, 1868: 146, fig. 2 (palate) [S. Atlantic: South Africa (type locality: Cape of Good Hope); type skull in British Museum, no. 1509b.]

Clymenia similis, Gray, 1868, Synopsis whales and dolphins Brit. Mus.,

p. 6 [classification].

Clymenia Burmeisteri Malm, 1871, Kongl. Svenska Vetensk. Akad. Handl., 9(2): 63, pl. 6, fig. 54a-54b (skull) [S. Atlantic: Brazil (type locality); type skull in Riksmuseum, Stockholm, collected by M. Huss].—Lütken, 1889, Vid. Selsk. Skrift., Copenhagen, (6), 5(1): 25, 59 [synonym of Prodelphinus euphrosyne Gray].

[Prodelphinus?] burmeisteri, Trouessart, 1904, Cat. Mamm., Suppl., p. 766 [classification].

[?] Prodelphinus Petersii Lütken, 1889, Vid. Selsk. Skrift., Copenhagen, (6), 5(1): 40 (table), 43, fig. (skull) [Indian (type locality); type a skeleton].

Delphinus amphitriteus Philippi, 1893, Anal. Mus. Nac. Chile, (1), Zool., 6:7, pl. 1, fig. 3 (animal) [S. Atlantic (type locality: 29° 15′ S.); type a female, captured in 1851 by R. A. Philippi on his voyage from Hamburg, Germany, to Valparaiso, Chile].

Prodelphinus amphitriteus, True, 1903, Proc. Biol. Soc. Washington, 16: 134 [comparison; classification].

Type: Skeleton in Zoological Museum, Berlin.

Type locality: East coast of South America in the vicinity of the Rio de La Plata.

DISTRIBUTION: In the western Atlantic: from southern Greenland to the Caribbean (Jamaica) and Rio de La Plata (35° S.), Argentina; in the eastern Atlantic: from the North Sea to the northern, western, and southern African seas; in the eastern Pacific: from the Bering Sea to Los Angeles County, Calif.; and in the western Pacific: in Siberian, Japanese, and New Zealand waters.

## Stenella crotaphiscus Cope

Delphinus crotaphiscus Cope, 1865, Proc. Acad. Nat. Sci. Philadelphia, p. 200, 203.

Clymenia crotaphiscus, Gray, 1871, Suppl. Cat. seals and whales Brit. Mus., p. 72 [classification].

Clymenia crotaphisca [sic], Dall, in Scammon, 1874, Marine mammals of north-western North America, p. 288 [listed].

[Prodelphinus] crotaphiscus, Trouessart, 1898, Cat. Mamm., p. 1034 [classification].

Type: Skull, Museum Peabody Academy, Salem, Massachusetts; presented by F. W. Putnam.

Type locality: Unknown. Distribution: Unknown.

#### Stenella dubia G. Cuvier

D[elphinus] dubius G. Cuvier, 1812, Ann. Mus. Hist. Nat., Paris, 19: 9-10, 14 ["dauphin à 140 dents"].—Cuvier, 1829, Règne Animal, 1: 288 [N. Atlantic: France].—Flower, 1884, Proc. Zool. Soc. London, 1883: 498 [characters; affinities].—Pucheran, 1856, Rev. Mag. Zool., (2), 8: 449 [characters of type skull in Paris museum; regarded as distinct from D. plumbeus Cuvier].

Delphinus dubius, Desmarest, 1817, Nouv. Dict. Hist. Nat., 9: 158 [characters].—Gray, 1850, Cat. Mamm. Brit. Mus., Cetacea, p. 119 [N. Atlantic: France; 3 skulls in Paris museum including type of frontalis Cuvier]; 1866, Cat. seals and whales Brit. Mus., p. 253 [characters of skulls in Paris museum].—Fraser, 1950, Atlantide Rep., 1: 72 [regarded as most nearly related to Stenella attenuata Gray].

Delph[inus] dubius, Cuvier, 1829, Règne Animal, 1: 288 [N. Atlantic: France].

Prodelphinus dubius, Gervais, in Van Bénéden and Gervais, 1880, Ostéographie des cétacés, p. 605 [classification].

C[lymenia] dubia, Flower, 1884, Proc. Zool. Soc. London, 1883: 512 [classification].

Delphinus malayanus Lesson, 1826a, Voyage autour du Monde sur la Corvette . . . La Coquille, Zoology, 1(1): 184; Atlas, pl. 9, fig. 5 (animal) [N. Pacific: South China Sea (type locality: Karimata Strait between Java and Borneo); type captured at sea but not known to have been preserved]; 1826b, Ferussac Bull. Sci. Nat., 7: 373 [description].—Blanford, 1891, Fauna British India, p. 588 [Indian: Sundarban Islands, Bay of Bengal; attenuatus Gray regarded as a synonym].

Steno Malayanus, Gray, 1866, Cat. seals and whales Brit. Mus., p. 232 [characters; synonyms: Delphinus capensis Rapp (cf. Stenella dubia), D. Rappii Reichenbach (cf. Stenella dubia)].

Prodelphinus malayanus, True, 1889, Bull. U.S. Nat. Mus., 36: 67, 165, pl. 16, fig. 1 (animal), pl. 2 (skull) [characters].—Weber, 1923, Die Cetaceen der Siboga-Expedition, Siboga Expeditie, 58: 8 [S. Pacific: Indonesia (Lamakera, Solor; Java); Java Sea (between Java and Celebes); Indian; synonyms: velox Cuvier, brevimanus Wagner, attenuatus Gray, pseudo-delphis Wiegmann, capensis Gray, punctatus Gray].
D[elphinus] velox Cuvier, 1829, Règne Animal, ed. 2, 1: 288 [Indian:

Ceylon (type locality)].

Delphinus pseudodelphis Wiegmann, 1840 (or earlier), Schreber's Säugthiere, pl. 358 (skull) [no text].—Schlegel, 1841, Abhandlungen aus dem Gebiete der Zoologie und vergleichenden Anatomie, 1(Cetaceen): 22 [referred skull in Leiden Museum; regarded as nearest Delphinus malayanus Lesson].—Wagner, 1846, Schreber's Säugthiere, 7: 332 [characters; no locality or collector's data].—True, 1894, Proc. U.S. Nat. Mus., 17: 36 [name published before 1841; regarded as a nomen nudum antedating attenuatus Gray].

Stenella pseudodelphis, Oliver, 1922, Proc. Zool. Soc. London, 1922: 583 [S. Pacific: New Zealand; regarded as conspecific with malayanus Lesson and franatus F. Cuvier].

[?] Delphinus loriger Wiegmann, 1841 (?), Schreber's Säugthiere, pl. 362 (animal) [plate, no text].—Wagner, 1846, Schreber's Säugthiere, 7: 335 [comparisons; no locality].

Delphinus attenuatus Gray, 1843, List Mamm. Brit. Mus., p. 105 [India? skull presented by Mrs. Ince; a nomen nudum].

Steno attenuatus Gray, 1846, Zoology of the voyage of H.M.S. Erebus and Terror, 1(Mammalia): 44, pl. 28 (skull) [locality unknown]; 1850, Cat. Mamm. Brit. Mus., Cetacea, p. 130 [S. Atlantic: Chile (Cape Horn); characters; Delphinus pseudodelphis Schreber may be same]; 1866, Cat. seals and whales Brit. Mus., pp. 235, 394 [S. Atlantic:

Chile (Cape Horn); sea west of Cape of Good Hope; Indian: Bay of Bengal]; 1871, Suppl. Cat. seals and whales Brit. Mus., p. 66 [Indian: India].—Malm, 1871, Kongl. Svenska Vetenskaps Akad. Handl., 9(2): 51 [cranial characters].—Flower, 1884, Proc. Zool. Soc. London, 1883: 498 [characters; comparisons].

S[teno] attenuatus, Gray, 1870, Ann. Mag. Nat. Hist., (4), 6: 393 [classification].

C[lymenia] (Steno) attenuatus, Flower, 1884, Proc. Zool. Soc. London, 1883: 512 [taxonomy].

Prodelphinus attenuatus, Flower, 1885, List Cetacea Brit. Mus., p. 30 [Indian: Séchelles Islands; S. Atlantic: South Africa (Cape of Good Hope); Steno capensis Gray a synonym; type skull received from South African Museum].—True, 1889, Bull. U.S. Nat. Mus., 36: 67–71, 165, pl. 17, fig. 1 (animal), fig. 2 (skull) [S. Atlantic: South Africa (near St. Paul Island, Cape of Good Hope); synonyms: Delphinus pseudodelphis Wiegmann, 1846, Clymene punctata Gray, 1865, Steno capensis Gray, 1865].—Beddard, 1900, Book of whales, p. 260 [N. Atlantic; S. Atlantic: Chile (Cape Horn); South Africa (Cape of Good Hope); Indian: India (Bay of Bengal); synonyms: pseudodelphis Wiegmann, capensis Gray, punctata Gray].—True, 1903, Bull. U.S. Fish Commission, 1903: 41, pl. 1 (animal), pl. 2 (skull) [Pacific: Hawaii; characters; comparisons; capensis Gray a synonym].—Fraser, in Norman and Fraser, 1938, Giant fishes, whales and dolphins, p. 332 [characters; Atlantic (tropical and subtropical parts)].

P[rodelphinus] attenuatus, True, 1894, Proc. U.S. Nat. Mus., 17: 33
 [Indian: Amirante Island, Alphonse Island, Providence Island, Johanna Island; characters; comparisons; synonyms: Delphinus pseudo-delphinus Wiegmann, Steno capensis Gray, Clymene punctata Gray].

Stenella attenuata, Iredale and Troughton, 1934, Mem. Australian Mus., 6: 66 [S. Pacific: Australia (Tasmania); nomenclature].—Fraser, 1950, Atlantide Rep., 1: 62 [characters; comparisons; synonyms: Steno capensis Gray, Clymene punctata Gray].—Miller and Kellogg, 1955, Bull. U.S. Nat. Mus., 205: 655 [N. Pacific: Hawaiian Islands].— Scheffer and Rice, 1963, U.S. Fish and Wildlife Serv., Spec. Sci. Rep., 431: 6 [regarded as possibly identical with S. malayana Lesson, 1826]. Nishiwaki, Nakajuma, Kamiya, 1965, Sci. Rep. Whales Res. Inst., 19: 53, figs. 1-3 (animal), pls. 1-6 (osteology) [N. Pacific: Japan (Arari Bay); characters; habits; local name: "arari-iruka"]. Delphinus brevimanus Wagner, 1846, Schreber's Säugthiere, 7: pl. 361, fig. 2 (animal) [colored plate, without text, ex Hombron and Jacquinot, 1842-1853, Voy. au Pôle Sud, Astrolabe et la Zélée, Atlas, pl. 21, fig. 2].—Pucheran, 1853, Voyage au Pôle Sud . . . l'Astrolabe et la Zélée, Zoologie, 3: 38, 42; Atlas, pl. 21, fig. 2 (animal), pl. 23, figs. 7, 8 (skull) [Indian: Straits of Banda and Singapore; presumably in Paris Museum].

Steno? brevimanus, Gray, 1866, Cat. seals and whales Brit. Mus., p. 236 [Indian: Straits of Banda and Singapore; characters of supposed type skull; synonyms: "dauphin à petit pectoral" Pucheran, microbrachium Gray].

Prodelphinus brevimanus, Gervais, in Van Bénéden and Gervais, 1880, Ostéographie des cétacés, p. 605 [classification].

Delphinus? microbrachium Gray, 1850, Cat. Mamm. Brit. Mus., Cetacea, p. 119 [name based on the "dauphin à petit pectoral, Voy. Pôle Sud, t. 21, f. 2; t. 23, f. 7, 8"; no locality; type a skull in the Paris museum labelled "dauphin à petit pectoral"].

Delphinus capensis, Rapp (not Gray 1828), 1837, Die Cetaceen, p. 31, pl. 2, fig. 1 (animal) [S. Atlantic: South Africa (Cape of Good Hope)].

Steno Capensis, Gray 1865, Proc. Zool. Soc. London, 1865: 522 [S. Pacific: South Africa (type locality: Cape of Good Hope); type in South African Museum, collected by Capt. Carew, later presented to British Museum]; 1866, Cat. seals and whales Brit. Mus., p. 394 [characters].

C[lymenia] (Steno) Capensis, Flower, 1884, Proc. Zool. Soc. London, 1883: 512 [classification].

[Prodelphinus] capensis, Trouessart, 1898, Cat. Mamm., p. 1035 [classification].

Delphinus Rappii Reichenbach, 1845, Synopsis Mammalium, Leipzig, 1: 12, pl. 18, fig. 57 (ex Rapp) [name based on D. capensis Rapp (not Gray)]; 1846, Vollst. Naturg. Cataceen, p. 117, pl. 18, fig. 57 [S. Atlantic: South Africa (type locality: Cape of Good Hope); name based on Delphinus Capensis Rapp (not Gray), mounted skin and skull in Stuttgart Museum].

Clymene punctata Gray, 1866, Proc. Zool. Soc. London, 1865: 738.— True, 1889, Bull. U.S. Nat. Mus., 36: 67, 69 [taxonomy; a synonym of attenuatus].

Delphinus punctatus, Gray, 1866, Cat. seals and whales Brit. Mus., p. 398, fig. 101 (animal) [N. Atlantic: 16° 40′ N., 21° W.].

Types: One or more skulls only, Muséum National d'Histoire Naturelle, Paris. According to Gray (1850, Cat. Cetacea, p. 119) three skulls, nos. 2, 7, 10, are labelled *dubius*. True (1889, Bull. U.S. Nat. Mus., 36: 73) lists six Paris museum skulls without locality; nos. 3036, 3030, 3039, 3038, 3032, 3040. Fraser (1950, Atlantide Rep., 1: 72) refers to four of these, of which one presumably is the holotype redescribed by Pucheran (1856, Rev. Mag. Zool., p. 449).

Type locality: Not given in original description; later the specimen was said to be "un qui vient sur nos côtes [i.e., of France]" (Cuvier, 1827, Règne animal, 1: 288). According to Gray (1850, Cat. Cetacea, pp. 119, 120), one of the three skulls examined by him is from "Cap Verd," the

others without locality. Gray believed, however, that the "Cap Verd" specimen might be the type of *D. frontalis* Cuvier.

DISTRIBUTION: South Atlantic (Cape of Good Hope and Cape Horn), Indian Ocean, and Pacific Ocean (New Zealand; South China Sea; Japanese seas; Hawaii). The French coast (dubia) and Cape Horn (attenuata) records are not confirmed.

#### Stenella frontalis G. Cuvier

D[elphinus] frontalis G. Cuvier, 1829, Règne Animal, 1: 288.—Beddard. 1900, Book of whales, p. 261 [synonyms: doris Gray, clymene Gray, normalis Gravl.

Delphinus frontalis, Pucheran, 1856, Rev. Mag. Zool., (2), 8: 456 [characters: comparisons].

Prodelphinus frontalis, Gervais, in Van Bénéden and Gervais, 1880, Ostéographie des cétacés, p. 605, pl. 38, fig. 3 (skull) [classification].

[Clymenia] frontalis, Flower, 1884, Proc. Zool. Soc. London, 1883: 512 [classification].

Stenella frontalis, Fraser, 1950, Atlantide Rep., 1: 61 [characters; taxonomy; synonyms: fraenatus Cuvier, doris Gray].—Miller and Kellogg, 1955, Bull. U.S. Nat. Mus., 205: 655 [Atlantic: U.S.A. (North Carolina; Florida)].—Hall and Kelson, 1959, Mammals of North America, p. 817 [Atlantic: U.S.A. ("North Carolina; Fort Macon, thence southward to South American waters"); part synonymy].-Scheffer and Rice, 1963, U.S. Fish and Wildlife Serv., Spec. Sci. Rep., 431: 6 [fraenata F. Cuvier a synonym; possibly identical with S. dubia G. Cuvier, 1812].

Delphinus frænatus F. Cuvier, 1836, Hist. Nat. Cétacés, p. 155, pl. 10, fig. 1 [N. Atlantic (type locality: 30 leagues south of Cape Verde Islands); collected by Dussumier].—C. F. Cuvier, 1842, in Geoffroy and Cuvier, Hist. Nat. Mamm., 7: 6 [name for colored figure and text of the "dauphin bridé" of F. Cuvier, op. cit., vol. 6, fasc. 58, September 1829].—Pucheran, 1856, Rev. Mag. Zool., (2), 8: 456 [characters; comparisons].

Delphinus frenatus [sic], Gray, 1846, Zoology of the voyage of H. M. S. Erebus and Terror, 1(Mammalia): 39 [characters]; 1850, Cat. Cetacea Brit. Mus., p. 115 [characters ex type skull in Paris Museum].

Tursio franatus, Gray, 1866, Cat. seals and whales Brit. Mus., p. 256 [characters; variant name frenatus cited in text].

Prodelphinus franatus, Gervais, in Van Bénéden and Gervais, 1880, Ostéographie des cétacés, p. 605, pl. 38, fig. 4 (skull) [classification]. [Clymenia] franata, Flower, 1884, Proc. Zool. Soc. London, 1883: 512 [classification].

Prodelphinus franatus [sic], True, 1889, Bull. U.S. Nat. Mus., 36: 68, 70, 73, 166, pl. 19, fig. 1 (animal), fig. 2 (skull), pl. 20, fig. 1 (animal) [N. Atlantic: St. Helen, Fernando Po, Cape Verde Islands; Indian: Madagascar; taxonomy; characters; synonyms: *Delphinus frontalis*, *D. doris*, *D. clymene*, *D. normalis*, ?*D. dubius*].—Fraser, *in* Norman and Fraser, 1938, Giant fishes, whales and dolphins, p. 332 [characters; distribution].

Prodelphinus frænatus, Beddard, 1900, Book of whales, p. 261 [characters]. Delphinus Doris Gray, 1846, Zoology of the voyage of H.M.S. Erebus and Terror, 1(Mammalia): 39, pl. 20 (skull) [locality unknown; type skull in British Museum]; 1850, Cat. Mamm. Brit. Mus., Cetacea, p. 114 [characters; no locality].

Tursio Doris, Gray, 1866, Cat. seals and whales Brit. Mus., pp. 255, 400 [characters; S. Atlantic: South Africa (Cape of Good Hope)].

Clymene doris, Gray, 1866, Proc. Zool. Soc. London 1866: 214 [classification].

Clymenia Doris, Gray, 1868, Synopsis whales and dolphins Brit. Mus., p. 6, pl. 20 (skull) [characters]; 1871, Suppl. Cat. seals and whales Brit. Mus., p. 70 [listed].

Clymenia doris, Flower, 1884, Proc. Zool. Soc. London, 1883: 498, 499, 512 [N. Atlantic: St. Helena (labelled *Delphinus dubius* in Paris museum); Cap Verd (franatus Cuvier in Paris museum); Cap Verd (frontalis Cuvier in Paris museum)].

Prodelphinus doris, True, 1885, Rep. U.S. Nat. Mus., 1884: 317, pls. 1, 2 (animal), pls. 3-6 (skull) [N. Atlantic: U.S.A. (Pensacola, Florida; Hatteras, N.C.); characters; comparisons; Delphinus plagiodon Cope a synonym].—Flower, 1885, List Cetacea Brit. Mus., p. 29 [N. Atlantic: Fernando Po; dubius Flower probably a synonym; skull 350a type of clymene Gray and normalis Gray].—Lütken, 1889, Vid. Selsk. Skrift., Copenhagen, (6) Nat. Math., 5(1): 31 [near Porto Rico, 10° N., 39° W.].

Delphinus mediterraneus Loche, 1860, Rev. Mag. Zool., (2), 12: 475, pl. 22, fig. 2 (animal) [N. Atlantic: Algeria (type locality); type skin (and skull?), Natural History Museum of Algiers].

Delphinus delphis mediterranea [sic], Nobre, 1900, Ann. Sci. Nat., Porto, 6: 50 [N. Atlantic: Portugal].

Prodelphinus sp., Cadenat and Lassarat, 1959, Bull. Inst. Français Afrique Noire, 21(A): 779, figs. 1–7 (animal, head, beak), figs. 8–10 (foetus), figs. 11–14 (skull) [N. Atlantic: Ivory Coast].

Type: Skull, Museum National d'Histoire Naturelle, Paris, no. A 3035; collected by M. Dussumier.

Type locality: Near Cape Verde Islands, North Atlantic, off the coast of Africa.

DISTRIBUTION: In eastern Atlantic: from near Cape Verde Islands (15° N.) to off the Cape of Good Hope (40° S.); in western Atlantic: from North Carolina to Florida but not recorded from South American waters;

present in Japanese seas according to Kuroda (1938, List of Japanese mammals, p. 16).

## Stenella graffmani Lönnberg

Prodelphinus graffmani Lönnberg, 1934, Ark. Zool. Stockholm, 26A(19): 1, fig. p. 5 (pectoral fin), pl. (animal).

Stenella graffmani, Kellogg, 1940, Nat. Geogr. Mag., 77(1): 85 (in text) [Pacific: Colombia (Gorgona Island)].—Miller and Kellogg, 1955, Bull. U.S. Nat. Mus., 205: 656 [distribution].—Van Gelder, 1960 American Mus. Novit., 1992: 15 [N. Pacific: Mexico (María Magdalena Island and Tres Marías Islands, Nayarit; 8 miles southwest of Punta Maldonado)].

S[tenella] graffmani, Fraser, 1950, Atlantide Rep., 1: 65 [characters; comparisons].

Type: Skin and damaged skull in the Natural History State Museum, Stockholm; collected November or December 1933 by Holger Graffman.

Type locality: Off the beach approximately 20 miles north of Acapulco, Guerrero, Mexico.

DISTRIBUTION: Eastern Pacific, from Acapulco, Guerrero, Mexico, south, following the coast to Panama and Isla Gorgona off the western coast of Colombia.

## Stenella longirostris Gray

Delphinus longirostris Gray, 1828, Spicilegia Zoologica, 1: 1.—Schlegel, 1841, Abhandlungen aus dem Gebiete der Zoologie und vergleichenden Anatomie, 1(Cetacea): 19, pls. 1, 2 (skull of type), pl. 4, fig. 1 (teeth) [S. Atlantic: South Africa (Cape of Good Hope); N. Pacific: Japan; characters; type a skull from Dr. Brooke's collection now in the Leiden Museum and figured in the cited plates.]—Temminck, 1842, Fauna Japonica, Mammifères marins, p. 13, pl. 24 (animal) [N. Pacific: Japan; characters].—Gray, 1846, Zoology of the voyage of H. M. S. Erebus and Terror, 1(Mammalia): 42 [characters]; 1850, Cat. Mamm. Brit. Mus., Cetacea, p. 125 [characters]; 1866, Cat. seals and whales Brit. Mus., p. 241 [characters].—Flower, 1884, Proc. Zool. Soc. London, 1883: 503, 504 [distinction from the Dussumier Malabar skull of Delphinus longirostris Cuvier (not Gray), 1829, Rég. Anim., p. 288, and Delphinus capensis Gray].—Jentink, 1887, Mus. Nat. Hist. Pays Bas, 9: 173 [type skull in Leiden Museum].—Layne, 1965, Bull. Florida State Mus., 9(4): 159, fig. 3 (animal), fig. 4 (skull) [N. Atlantic: Gulf of Mexico (Dog Island, Franklin Co., Florida); characters].

[Clymenia] longirostris, Flower, 1884, Proc. Zool. Soc. London, 1883: 499, 504, 512 [characters; type in Leiden Museum].

Prodelphinus longirostris, Flower, 1885, Cat. Cetacea Brit. Mus., p. 31 [Delphinus stenorhynchus Gray a synonym; D. microps Gray "probably the same"].—True, 1889, Bull. U.S. Nat. Mus., 36: 75, 166, pl. 12,

fig. 2 (skull), pl. 20, fig. 2 (skull) [type locality: "Cape of Good Hope"; type in Leiden Museum; Pacific: between Panama and Galápagos Islands; Australia; characters; synonyms: microps Gray, alope Gray, stenorhynchus Gray].—Lahille, 1899, Primera reunión del congreso latinoamericano, 3: 36 [S. Atlantic: Argentina (Buenos Aires)].—Beddard, 1900, Book of whales, p. 262 [part; S. Atlantic: Brazil; Chile (Cape Horn); Pacific: Japan, Galápagos, Australia]; 1905, Rev. Jardín Zool., Buenos Aires, p. 60 [part; S. Atlantic: Argentina (coast of Buenos Aires).—Cabrera and Yepes, 1940, Mamíferos sudamericanos, p. 296 [Pacific: Panama, Galápagos Islands; S. Atlantic: east of Buenos Aires].—Mann, 1957, Invest. Zool. Chilenas, 4: 104 S. Pacific: Chile; key characters].—Cadenat, 1959, Bull. Inst. Français Afrique Noire, 21(A): 1394 [N. Atlantic: Sénégal].

Prodelphinus longirostris?, Cadenat and Doutre, 1959, Bull. Inst. Français Afrique Noire, 21(A): 787, figs. 1–17 (animals), figs. 18–23 (skulls), fig. 24 (sternum) [N. Atlantic: Sénégal; characters].

[Prodelphinus] longirostris, Trouessart, 1898, Cat. Mamm., p. 1036 [classification; part; synonyms: microps Gray, stenorhynchus Gray, Steno consimilis Malm].

P[rodelphinus] longirostris, Schneider, 1946, Bol. Soc. Concepción (Chile),
21: 79 [S. Pacific: Chile (Concepción)].—Yañez, 1948, Rev. Biol.
Marina, Valparaiso, 1: 114 [S. Pacific: Chile (north to Chiloé)].

Stenella longirostris, Iredale and Troughton, 1934, Mem. Australian Mus., 6: 66 [S. Pacific: Australia].—Moore, 1953, American Midl. Nat., 49: 132 [N. Atlantic: Turtle Rocks, west of Bahamas, 25°41′ N., 79°20′ W.].—Miller and Kellogg, 1955, Bull. U.S. Nat. Mus., 205: 656 [type locality: "not Cape of Good Hope as ordinarily cited"; N. Atlantic: between Panama and Galápagos].

Delphinus Alope Gray, 1846, Zoology of the voyage of H.M.S. Erebus and Terror, 1(Mammalia): pl. 32 (animal) [no text]; 1850, Cat. Cet., p. 118 [characters; skull only from Mr. Warwick's collection; habitat unknown]; 1866, Cat. seals and whales Brit. Mus., pp. 252, 399 [S. Atlantic: Chile (Cape Horn)].

D[elphinus] alope, Beddard, 1900, Book of whales, p. 261 [synonyms: microps, stenorhynchus].

Clymene alope, Gray, 1866, Proc. Zool. Soc. London, 1866: 214 [classification].

Clymenia Alope, Gray, 1868, Synopsis whales and dolphins Brit. Mus., p. 6, pl. 32 (skull) [characters]; 1871, Suppl. Cat. seals and whales Brit. Mus., p. 70 [S. Atlantic: Chile (Cape Horn)].

Prodelphinus alope, Flower, 1885, List Cetacea Brit. Mus., p. 31 [type; skull figured in pl. 32 of supplementary plates in Gray, 1846, Zoology . . . Erebus and Terror, 1].

Stenella alope, Fraser, 1950, Atlantide Rep., 1: 66 [comparisons; not the "Prodelphinus alope" of the Copenhagen Museum (=Stenella attenuata)].—

Ellerman and Morrison Scott, 1951, Checklist of Palaearctic and Indian mammals, pp. 732 (in text), 733 [Indian: Cevlon: "Dr. Fraser considers it to be a valid species".

Delphinus microps Gray, 1846, Zoology of the voyage of H.M.S. Erebus and Terror, 1(Mammalia): 42, pl. 25 (skull) [no locality given]; 1850, Cat. Mamm. Brit. Mus., Cetacea, p. 126 [S. Atlantic: Brazil; characters; comparisons; type skull only in the Haslar Hospital Museum, London]; 1866, Cat. seals and whales Brit. Mus., pp. 240, 395 [part; S. Atlantic: Brazil].—Burmeister, 1867, Anal. Mus. Publ. Buenos Aires, 1: 306 [S. Atlantic].—Van Bénéden, 1873, Mem. Acad. Roy. Bruxelles, 41: 4 [S. Atlantic: Brazil].—Van Bénéden and Gervais, 1880, Ostéographie des cétacés, p. 594 [S. Atlantic: Argentina (mouth of Río de la Plata); probably a synonym of Sotalia brasiliensis Van Bénéden].-Figueira, 1894, Anal. Mus. Nac. Montevideo, 2: 11 (separate) [S. Atlantic: Uruguay; local name: "tonina"]. Clymene microps, Gray, 1866, Proc. Zool. Soc. London, 1866: 214 [classification].

Clymenia microps, Gray, 1871, Suppl. Cat. seals and whales Brit. Mus.,

p. 69 [S. Atlantic: Brazil].—Flower, 1884, Proc. Zool. Soc. London, 1883: 499, 500 [classification; Delphinus roseiventer Hombron and

[aquinot a synonym].

Prodelphinus microps, Flower, 1885, List Cetacea Brit. Mus., p. 31 [type figured in Gray, 1846, Zoology . . . Erebus and Terror, 1: pl. 25;

probably same as P. longirostris].

Stenella microps, Miller and Kellogg, 1955, Bull. U.S. Nat. Mus., 205: 656 [N. Pacific: Mexico (Tres Marías Islands, off Nayarit, Mexico, 22° N.)].-Van Gelder, 1960, American Mus. Novit., 1992: 15 [N. Pacific: Mexico (Tres Marías); comparison with longirostris, cranial proportions virtually the same].—Hester, Hunter and Whitney, 1963, Journ. Mammal., 44: 586, fig. (animals spinning) [jumping and spinning behavior].

Delphinus roseiventris Wagner, 1846, Schreber's Säugthiere, 7: pl. 360 (animal) [colored plate, without text, of the "dauphin à ventre rouge" of Hombron and Jaquinot, 1842-1853, Atlas, Zoology, Voyage au Pôle Sud . . . l'Astrolabe et la Zélée, pl. 22, fig. 2].—Pucheran and Jaquinot, 1853, Voyage au Pôle Sud . . . l'Astrolabe et la Zélée, Zool., 3: 39 [Indian: Moluccas (type locality); type a skull in Paris Museum].—Scheffer and Rice, 1963, U.S. Fish and Wildlife Serv. Spec. Sci. Rep., 431: 6 [Indian: "Banda Sea and Torres Strait"].

Steno roseiventris, Gray, 1866, Cat. seals and whales Brit. Mus., p. 233 [characters]; 1871, Suppl. Cat. seals and whales Brit. Mus., p. 66 ["skull not seen by me"].

Prodelphinus roseiventris, Gervais, in Van Bénéden and Gervais, 1880, Ostéographie des cétacés, p. 605, pl. 38, fig. 6 (skull) [classification]. C[lymenia] roseiventris, Flower, 1884, Proc. Zool. Soc. London, 1883: 500, 512 [classification; "certainly the same as microps" (=longirostris)].

Fretidelphis roseiventris, Iredale and Troughton, 1934, Mem. Australian Mus., 6: 65 [classification].

Delphinus stenorhynchus Gray, 1866, Cat. seals and whales Brit. Mus., pp. 240 (specimen b under Delphinus microps), 396 (name) [locality unknown; type in British Museum].

Clymene stenorhynchus, Gray, 1866, Proc. Zool. Soc. London, 1866: 214 [classification].

Clymenia stenorhyncha, Gray, 1868, Synopsis whales and dolphins Brit. Mus., p. 6 [classification]; 1871, Suppl. Cat. seals and whales Brit. Mus., p. 69 [locality unknown].

Steno consimilis Malm, 1871, Kong. Svensk. Vetensk. Handl., 9: 104, pl. 6, figs. 53a,b (skull) [Indian: Madagascar (type locality); type skeleton in Technological Institute, Norrköping, Sweden].

S[tenella] Longirostris Kunitomoi Nishiwaki, 1957, Coll. Rep. Fish Sci., Tokyo Univ. Press, p. 151 [N. Pacific: Japan (Goto Island, southwest Kyushu); nomen nudum listed as "Ogawa's long-snouted dolphin"].— Imaizumi, 1958, Nat. Sci. Mus. Tokyo, 25(5-6): 9 [N. Pacific: Japan (Kyushu); type skull in Tokyo Museum; nomen nudum].

Type: Skull only, originally in the Joshua Brookes Museum, now in the Leiden Museum (cf. Schlegel, 1841, Abhandl. Gebiete Zool. Vergl. Anat., 1: 19; Flower, 1884, Proc. Zool. Soc. London, 1883: 449).

Type locality: Unknown.

DISTRIBUTION: In the Pacific: from Tres Marías Islands, off coast of Nayarit, Mexico, south to Cape Horn, and from Japan to Australia; in western Atlantic: from west of the Bahamas, Gulf of Mexico, and Brazil to Cape Horn; in eastern Atlantic: from Sénégal to Cape of Good Hope, South Africa; in the Indian Ocean: recorded from Ceylon.

# Stenella pernettyi Blainville.

Delphinus [(Delphinorhynchus)] pernettensis Blainville, in Desmarest, 1817, Nouv. Dict. Hist. Nat., 9: 154.

Delphinus Pernettyi Desmarest, 1822, Mammalogie, p. 543 [characters; valid emendation of specific name].

Delphinorhynchus Pernettyi Lesson, 1827, Manuel Mamm., p. 406 [characters].

Delphinus Pernetyi [sic], True, 1885, Rep. U.S. Nat. Mus., 1884: 322 [characters; comparisons; status doubtful].

Delphinus pernettyensis [sic], Philippi, 1893, Anal. Mus. Nac. Chile, (1) Zool., 6: 14, pl. 5, fig. 31 (animal ex Pernetty) [S. Atlantic (type locality: 16° S., according to Pernetty, 1769, Journal historique d'un voyage fait aux Iles Malouines en 1763 et 1764, pp. 122, 123)].—

Fraser, 1950, Atlantide Rep., 1: 64 [S. Atlantic (type locality: near the Abrolhos Bank, 16°44′ S., 35°10′ W.)].

Delphinus plagiodon Cope, 1866, Proc. Acad. Nat. Sci. Philidephia, 18: 296 [type skull in U.S. National Museum, no. 3884; type locality unknown].—Poole and Schantz, 1942, Bull. U.S. Nat. Mus., 178: 113 [type history].

Prodelphinus plagiodon, True, 1885, Rep. U.S. Nat. Mus., 1884: 323, 324, pls. 4, 6 (skull) [comparisons].—True, 1889, Bull. U.S. Nat. Mus., 36: 62, 64, 66, 67, [N. Atlantic: U.S.A. (Hatteras, North Carolina; Pensacola, Florida); characters; comparisons].—Beddard, 1900, Book of whales, p. 259 [characters].—Fraser, in Norman and Fraser, 1938, Giant fishes, whales and dolphins, p. 332 [characters].

Prodelphinus? plagiodon, True, 1889, Bull. U.S. Nat. Mus., 36: 164, pl. 18, fig. 1 (animal), fig. 2 (skull) [N. Atlantic: U.S.A.: (Coast and Gulf of Mexico)].

Stenella plagiodon, Kellogg, 1940, Nat. Geogr. Mag., 77: 83, pl. 19 (animal) [characters; distribution].—Fraser, 1950, Atlantide Rep., 1: 64 [characters; comparisons; Delphinus pernettensis Blainville "has affinities"].—Moore, 1953, Midl. Nat., 49: 130, fig. (animal) [N. Atlantic: U.S.A. (Florida)].—Miller and Kellogg, 1955, Bull. U.S. Nat. Mus. 205: 656 [N. Atlantic: Panama (Golfo de San Blas)].— Caldwell, 1960, Journ. Mammal., 41: 134 [N. Atlantic: Gulf of Mexico; characters; behavior].

Prodelphinus doris, True (not Gray), 1885, Rep. U.S. Nat. Mus., 1884: 318, pls. 1, 2 (animal), pls. 3, 5 (skull) [Atlantic: U.S.A. (Pensacola, Florida; Cape Hatteras, North Carolina); characters; comparisons; taxonomy; Delphinus Pernetyi [sic] Blainville probably the same].

Type: Name based on dolphin described and figured by Pernetty (1764, Voyage iles Malouines, p. 99, pl. 11, fig. 1).

Type Locality: First sighted 6°43′ N., 25°17′ W.; one caught at 16°44′ S., 35°10′ W., i.e., in the neighborhood of the Abrolhos Bank off coast of Brazil (Pernetty, 1769, Journal historique d'un voyage fait aux Iles Malouines en 1763 et 1764, pp. 77, 122, 123).

DISTRIBUTION: North Atlantic: from off Cape Hatteras, North Carolina, south through the Gulf of Mexico and the Caribbean Sea; South Atlantic: from off the coast of Brazil.

#### Genus DELPHINUS Linnaeus

Delphinus Linnaeus, 1758, Syst. Nat., ed. 10, 1: 77 [included species: phocœna (=Phocœna phocœna), delphis, orca (=Orcinus orca)].—Flower, 1884, Proc. Zool. Soc. London, 1883: 166, 500 [taxonomy].—True, 1889, Bull. U.S. Nat. Mus., 36: 44, 160 [taxonomy].—Kellogg, 1928, Quart. Rev. Biol., 3: 33 et seq. [history; relationships].—Winge, 1942, Interrelat. Mamm. Gen., 3: 251, 285 [characters; classification].—

Fraser and Purves, 1960, Bull. Brit. Mus. (Nat Hist.), Zool., 7: fig. 26 and text [auditory system; classification].

Rhinodelphis Wagner, 1846, Schreber's Saugthiere, 7: viii, 281, 316 [subgenus of Delphinus; included species: eschrichtii Schlegel (=Lagenorhynchus acutus Gray), D. albirostris Gray (=Lagenorhynchus albirostris Gray), tursio Fabricius (=D. tursio authors=Tursiops truncatus Montagu), abusalam Rüppel (= Tursiops t. aduncus Ehrenberg), planiceps Schlegel (=Steno bredanensis Lesson), reinwardtii (=Steno bredanensis Lesson), delphis (designated type by G. M. Allen, 1939, Bull. Mus. Comp. Zool., 83: 250=Delphinus delphis Linnaeus), pseudodelphis Wiegmann (=Stenella dubia Cuvier), plumbeus G. Cuvier (=Sotalia plumbea G. Cuvier), loriger Wiegmann (=Stenella loriger Wiegmann= ?S. dubia Cuvier), coeruleoalbus Meyen (=Stenella coeruleoalbus Meyen), superciliosus Lesson (= Lagenorhynchus cruciger Quoy and Gaimard), longirostris Gray (=Stenella longirostris Gray), novaezelandiae [sic] Quoy and Gaimard (= Delphinus delphis Linnaeus), leucoramphus Peron (=Lissodelphis peronii Lacépède), amazonicus Spix (=Inia geoffrensis Blainville)].

Delphis Gray, 1864, Proc. Zool. Soc. London, 1864: 236 [subgenus of Delphinus Linnaeus; type species: Delphinus delphis by tautonomy (and monotypy); name preoccupied by Delphis Wagler (=Delphinapterus Lacépède)].

Eudelphinus Van Bénéden and Gervais, 1880, Ostéographie des cétacés, p. 600 [type species: Delphinus delphis by original designation (p. 601).

Type species: Delphinus delphis Linnaeus, by tautonomy.

DISTRIBUTION: Temperate and warm seas throughout the world.

# Delphinus delphis delphis Linnaeus

Delphinus delphis Linnaeus, 1758, Syst. Nat., ed. 10, 1: 77.—Flower, 1880, Trans. Zool. Soc. London, (1880-1885), 11: 1, pl. 1 (animal) [external characters].—Flower, 1884, Proc. Zool. Soc. London, 1883: 500, 512, fig. 9 (palate) [characters; taxonomy].—True, 1889, Bull. U.S. Nat. Mus., 36: 45, 49, 50, 59, 85, 160, pl. 11, fig. 1 (animal), figs. 2, 3 (skull) [taxonomy; synonyms: D. major Gray, fulvofasciatus Wagner, forsteri Gray, janira Gray, pomeegra Owen, bairdii Dall, moorei Gray, walkeri Gray, novæ-zealandiæ [sic] Quoy and Gaimard, albimanus Peale, marginatus Lafont, fusus Lafont, variegatus Lafont, balteatus Lafont, moschatus Lafont].—Lahille, 1899, Primera reunión del Congreso Latinoamericano, 3: 200 [S. Atlantic: Argentina (coast of Chubut); Delphinus microps Burmeister a synonym].-Beddard, 1900, Book of whales, p. 255, pl. 14 (animal) [characters; habits].—Lahille, 1905, Rev. Jardín Zool., Buenos Aires, 1905: 59 [S. Atlantic: Argentina (Punta Cantor, Chubut); characters].—Thomas, 1911, Proc. Zool. Soc. London, 1911: 158 [type history].—Slijper, 1936, Die Cetaceen,

vergleichen-anatomische und systematisch (in text) [systematics; comparative anatomy; embryology; phylogeny].—Lillie, 1915, British Antarctic (Terra Nova) Expedition, 1910, Zool., 1(3): 121 [N. Atlantic: 1°7′-41°20′ N., 13°45′-23°18′ W.].—Fraser, in Norman and Fraser, 1938, Giant fishes, whales and dolphins, p. 329, pl. 8d. fig. 94 (skull) [characters].—Kellogg, 1940, Nat. Geogr. Mag., 77(1): 85, pl. 20 (animals), fig. p. 87 (animals) [characters; habits; distribution].—Cabrera and Yepes, 1940, Mamíferos sudamericanos, p. 295, pl. 73 (animals) [characters; habits; all coasts of South America].— Schneider, 1946, Bol. Soc. Biol. Concepción (Chile), 21: 79 [S. Pacific: Chile (Concepción); appears regularly at end of autumn].—Tubb, in Gibson-Hill, 1950, Sarawak Mus. Journ., 5: 296 (appendix) [S. Pacific: Sarawak].—Bini, 1951, Bull. Pesca Piscicolt. Idrobiol. Minist. Agric. For., (27), 6(1): 91, fig. 14 (animal) [S. Pacific: Peru (coast of Piura from Paita to Mancora)].-Mann, 1957, Invest. Zool. Chilenas, 4: 104 [S. Pacific: Chile; key characters].—Sergeant, 1958, Canadian Field Nat. 72: 156, fig. 1 (head), fig. 2 (breaching) [N. Atlantic: Canada (Dildo Arm, Trinity Bay, Newfoundland, 47°32' N., 53°33' W.)].—Sergeant, 1959, Norsk Hvalf-Tid., 48(11): 562 [N. Atlantic: Canada (Dildo Arm, Trinity Bay; Flemish Cap, east of the Grand Bank, Newfoundland)].—Fraser and Purves, 1960, Bull. Brit. Mus. (Nat. Hist.), 7: 17, 29, 58, 64, 72, 84, figs. 3-6 (head musculature) [auditory system].—Vincent, 1960, Bull. Inst. Océanogr. (Monaco), 57(1172): 1 [sound emission].—Essapian, 1962, Zeitschr. Säugeth., 27(4): 211 [courtship in captivity].

D[elphinus] delphis, Yañez, 1948, Rev. Biol. Marina, Valparaiso, 1: 114 [S. Pacific: Chile (45° S. northward)].

D[elphinus] d[elphis] delphis, Tomilin, 1957, Animals of eastern Europe and northern Asia, 9: 497 [classification]; 1962, Cetacea of the U.S.S.R., Fauna U.S.S.R., 79: 151 [distribution].

Delphinus vulgaris Lacépède, 1804, Hist. Nat. Cétacées, pp. xlii, 250, pls. 13, fig. 1 (animal), pl. 14, fig. 1 (skull) [type locality: all seas].—Sonnini (Lacépède), 1804, Hist. Nat. Cétacées, pp. 39, 356, pl. 4, fig. 1 (animal) [characters; history].

Delphinus capensis Gray, 1828, Spicilegia Zoologica, 1: 2, pl. 2, fig. 1 (animal) [S. Atlantic: South Africa (type locality: Cape of Good Hope); type a mounted skin with skull removed, British Museum, no. 41.17.34; originally in Royal College of Surgeons, collected by Capt. Heaviside].—Scheffer and Rice, 1963, U.S. Fish and Wildlife Serv. Spec. Sci. Rep., 431: 6 ["South Africa, Japan and ?Palestine"].

D[elphinus] longirostris G. Cuvier, 1829, Règne Animal, ed. 2, 1: 288 [Indian: India (type locality: coast of Malabar, Bengal Bay); type a skull in the Muséum National d'Histoire Naturelle, Paris; probably the one numbered a 3065 (cf. True, 1889, Bull. U.S. Nat. Mus., 36:

58); name preoccupied by D. longirostris Gray 1828 (=Stenella longirostris

Gray)].

Delphinus Novæ-zelandiæ Quoy and Gaimard, 1830, Voyage Astrolabe, Zoologie, 1: 149, pl. 28 (animal) [S. Pacific: New Zealand (type locality: near Cape Gable, not far from Tolaga Bay); name based on animal taken at sea Feb. 4, 1827].

Delphinus Zelandæ [sic], Gray, in Dieffenbach, 1843, Travels in New Zealand, 2: 183 [S. Pacific: New Zealand (Cook's Strait)].

D[elphinus] Novæ Zeelandiæ [sic], Wagner, 1846, Schreber's Säugthiere, 7: 338, pl. 357 (animal) [characters].

Delphinus Novæ Zealandiæ [sic], Gray, 1850, Cat. Mamm. Brit. Mus., Cetacea, p. 123 ["Antarctic seas"; characters].

Delphinus Janira Gray, 1846, Zoology of the voyage of H.M.S. Erebus and Terror, 1(Mammalia): 41, pl. 23 (skull) [N. Atlantic: Canada (type locality: Newfoundland); type a skull in the Bristol Museum, presented by G. Thorne].

Delphinus Forsteri Gray, 1846, Zoology of the voyage of H.M.S. Erebus and Terror, 1(Mammalia): 42, pl. 24 (animal) [S. Pacific (type locality: between New Caledonia and Norfolk Island); name based on the Delphinus delphis of Forster (1774, Descrip. Anim., p. 280) and unpublished figure reproduced by Gray (1846, op. cit., pl. 24)].

Delphinus fulvifasciatus Wagner, 1846, Schreber's Säugthiere, 7: pl. 361, fig. 1 (animal) [name based on the "dauphin à bande fauve" of Hombron and Jaquinot, 1842–1853, Voyage au Pôle Sud . . . l'Astrolabe et la Zélée, pl. 21, fig. 1].—Pucheran, 1853, Voyage au Pôle Sud . . . l'Astrolabe et la Zélée, Zool., 3: 37; Atlas, pl. 21, fig. 1 (animal) [Indian: Australia (type locality: Hobart Town, Tasmania); type mounted in Paris Museum].

Delphinus fulvofasciatus [sic], True, 1889, Bull. U.S. Nat. Mus., 36: 45, 50 [in synonymy of Delphinus delphis; characters; type a skull in Paris Museum, no. a 3025, from Hobart Town, Tasmania].

Delphinus albimanus Peale, 1848, U.S. Exploring Expedition, 1838–1840, 8: 33, pl. 6, fig. 1 (animal) [S. Pacific: Chile (type locality: off coast of Chile, 27°16′ S., 75°30′ W.); type a mounted skin with jaw, in U.S. Natural History Museum].—Cassin, 1858, U.S. Exploring Expedition during the years 1838–1842, p. 29 [characters].—Poole and Schantz, 1942, Bull. U.S. Nat. Mus., 178: 108 [type history].

Delphinus Sao Gray, 1850, Cat. Mamm. Brit. Mus., Cetacea, p. 125 [Indian (type locality: Madagascar); type skull in Paris museum, collected 1838 by Dussumier].

Delphinus Frithii Blyth, 1859, Journ. Asiatic Soc. Bengal, 28: 492 (in text) [type locality: "procured during the voyage from England to India"; type a skull in the Calcutta Museum, presented by R. W. G. Frith].

- Delphinus algeriensis Loche, 1860, Rev. Mag. Zool., Paris, 12: 474, pl. 22, fig. 1 (animal) [N. Atlantic: Algeria (type locality: along coast); type skin, skull, possibly complete skeleton, Natural History Museum of Algiers].
- Delphinus Moorei Gray, 1866, Proc. Zool. Soc. London, 1865: 736, fig. 1 (animal) [S. Atlantic: South Africa (type locality: southwest of Cape of Good Hope, 34° S., 7°3′ W.); type skin and skull, Liverpool Free Museum].—Gray, 1866, Cat. seals and whales Brit. Mus., p. 396, fig. 99 (animal) [characters].
- Delphinus Walkeri Gray, 1866a, Proc. Zool. Soc. London, 1865: 737, fig. 2 (animal) [S. Atlantic: South Africa (type locality: southwest of Cape of Good Hope, 35°38′ S., 0°10′ E.); type skin and skull, Liverpool Free Museum]; 1866b, Cat. seals and whales Brit. Mus., p. 397, fig. 100 (animal) [characters].
- Delphinus pomeegra Owen, 1866, Trans. Zool. Soc. London, 6: 23, pl. 6, fig. 3 (animal) [Indian: India (type locality: off coast of Madras); name based on skull and colored drawings provided by Sir Walter Elliot; type skull in Brit. Mus., no. 1478a-66.2.5.5].
- Delphinus major Gray, 1866, Cat. seals and whales Brit. Mus., p. 396 [type locality: unknown; type a skull, British Museum, no. 1472a-52.10.5.2, purchased 1852].
- Eudelphinus tasmaniensis Van Bénéden and Gervais, 1880, Ostéographie, p. 604, pl. 39, fig. 9 (skull) [Indian: Australia (type locality: Hobart Town, Tasmania); type skull in Paris Museum, collected by Jules Verreaux].
- Delphinus [delphis var.] fusus Fischer, 1881, Act. Soc. Linnéenne Bordeaux, (4), 35: 127, 128, 218, pl. 4, fig. 1 (animal) [N. Atlantic: France (type locality: Arcachon, Bay of Biscay); type skull originally in the Lafont Museum, Bordeaux].
- Delphinus [delphis var.] Souverbianus Fischer, 1881, Act. Soc. Linnéenne, Bordeaux, (4), 35: 127, 218, pl. 4, fig. 2 (animal) [N. Atlantic: France (type locality: Arcachon, Bay of Biscay); type skull originally in the Lafont Museum, Bordeaux].
- [Delphinus] Sowerbianus [sic], Trouessart, 1898, Cat. Mamm., p. 1033 [emendation of souverbianus Fischer, in synonymy of Delphinus delphis].
- [Grampus] sowerbianus, Trouessart, 1904, Cat. Mamm., Suppl., p. 769 [classification].
- Delphinus [delphis var.] variegatus Fischer, 1881, Act. Soc. Linnéenne, Bordeaux, (4), 35: 127, 139, 218, pl. 6, fig. 1 (animal) [N. Atlantic: France (type locality: Arcachon, Bay of Biscay); type skull originally in the Lafont Museum, Bordeaux].
- Delphinus [delphis var.] balteatus Fischer, 1881, Act. Soc. Linnéenne, Bordeaux, (4), 35: 127, 141, 218 [N. Atlantic: France (type locality:

Arcachon, Bay of Biscay); type skull originally in Lafont Museum, Bordeaux].

Delphinus [delphis var.] moschatus Fischer, 1881, Act. Soc. Linnéenne, Bordeaux, (4), 35: 127, 142, 218, pl. 5, fig. 1 (animal) [N. Atlantic: France (type locality: Arcachon, Bay of Biscay); type skeleton originally in Lafont Museum; name based on Delphinus marginatus Lafont, not Pucheran].

[Delphinus delphis] curvirostris Riggio, 1883, Naturalista Siciliano, 2(7): 1-7 (separate), pl. 3, fig. 1 (type skull) [type locality: unknown; name based on anomalous skull in the Technical Institute of Palermo, Italy].

Delphinus Dussumieri Blanford, 1891, Fauna British India, Mamm., p. 588 [new name for D. longirostris Cuvier, 1829, preoccupied by D. longirostris Gray, 1828 (=Stenella longirostris Gray)].

Delphinus microps, Burmeister (not Gray), 1866, Ann. Mag. Nat. Hist., (3) 18: 101 [S. Atlantic: Brazil (south of equator)]; 1867a, Zeitschr. gesammten Naturw., 29: 2 [S. Atlantic]; 1867b, Anal. Mus. Publ. Buenos Aires, 1: 306 [S. Atlantic; Delphinus Walkeri Gray a synonym].

Delphinus marginatus, Lafont, 1868 (not Pucheran), Act. Soc. Linnéenne, Bordeaux, (3), 6: 518 [N. Atlantic: France (Arcachon, Bay of Biscay); misidentification, not new name].

Delphinus roseiventris, Ogawa (not Wagner), 1932, Saito Hoonk, Jiho, 69–70: 13 [work not seen, cit. ex Cabrera, 1961, Rev. Mus. Argentino Cienc. Nat. "Bernardino Rivadavia," 4(2): 612].

Type: None in existence, name based on the common dolphin of Artedi (1738, Synonymia nominum piscium, p. 105).

Type locality: "Oceano Europaeo."

DISTRIBUTION: In western Atlantic: from off Newfoundland and Massachusetts to the Bahamas, Gulf of Mexico, Jamaica, coast of southern Brazil and Argentina between 27° S.–45° S.; Tristan da Cunha; in eastern Atlantic: from Iceland, Norway, and the Baltic Sea into north, west, and south African seas; Indian Ocean; in the South Pacific: New Zealand and Australia on the west, Peru and Chile from 4° S. to 45° S. on the east.

## Delphinus delphis ponticus Barabash-Nikiforov

Delphinus delphis ponticus Barabash-Nikiforov, 1935, Bull. Soc. Nat. Moscow (Sec. Biol.), (n.s.), 44: 249.—Tomilin, 1957, Mammals of eastern Europe and northern Asia, 9(Cetacea): 553 [classification].—Kleinenberg, 1956, Mammals of the Black Sea and the Sea of Azov [in Russian], p. 84 [U.S.S.R. (Black Sea); characters; variation; habits; economy].

Type: Male, skull only, no. 19, Institute of Oceanic Mammals, Moscow; collected May 13, 1934; cotypes: 72 specimens.

Type locality: Yalta region, Black Sea, U.S.S.R.

DISTRIBUTION: Black Sea.

## Delphinus delphis bairdi Dall

Delphinus Bairdii Dall, 1873, Proc. California Acad. Sci., 5:12 [N. Pacific]; 1874, in Scammon, Marine mammals of the northwestern coast of North America, p. 283, pl. 19, fig. 1 (animal) [characters].

Delphinus bairdii, Van Gelder, 1960, American Mus. Novit., 1992: 15 [N. Pacific: Mexico (Baja California, Gulf and Pacific sides); habits].

Delphinus bairdi, Norris and Prescott, 1961, Univ. California Publ. Zool., 63: 296, 300, 309 [N. Pacific: U.S.A. (Washington to Gulf of California); morphology; reproduction; behavior; bow riding; echelon formation swimming].

Delphinus delphis bairdii, Tomilin, 1957, Mammals of eastern Europe and northern Asia, 9: 553 [classification]; 1962, Cetacea of the U.S.S.R., Fauna U.S.S.R., 79: 151 [N. Pacific: U.S.S.R. (Okhotsk and Bering Seas); Japan].

Delphinus delphis, Rice, 1963, Norsk Hvalf.-Tid., 52: 156 [N. Pacific: Mexico (Baja California, 31°18′ N., 33°17′ W.)].

Types: Two females, skeletons only, one of which "has been forwarded to Washington." According to Poole and Schantz (1942, Bull. U.S. Nat. Mus., 178: 575), there is no record of the specimen having been in the U.S. National Museum.

Type Locality: Cape [now Point] Arguello, Santa Barbara Co., California.

DISTRIBUTION: North Pacific from Bering and Okhotsk Seas to Baja California, Mexico, on the east, Japan on the west.

Remarks: Tomilin (1957) is followed in recognizing bairdi as the northern Pacific representative of Delphinus delphis.

#### Genus TURSIOPS Gervais

Tursio Gray, 1843, List Mamm. Brit. Mus., pp. xxiii, 105 [type species: Tursiops truncatus Montagu, by monotypy; generic name preoccupied by Tursio Fleming, 1822, for the sperm whale].

Tursiops Gervais, 1855, Hist. Nat. Mamm., 2: 323 [new name for Tursio Gray, preoccupied by Tursio Fleming (=Physeter Linnaeus); included species: Tursiops tursio or the "grand dauphin ou le souffleur" of the French coast (=Delphinus tursio of Bonnaterre and authors, and not of Fabricius, which is unidentifiable), Tursiops aduncus].— Flower, 1884, Proc. Zool. Soc. London, 1883: 479 [taxonomy].— Kellogg, 1928, Quart. Rev. Biol., 3: 33 et seq. [history; relationship].— Winge, 1942, Interrelat. Mamm. Gen., p. 251 [characters; classification].—Fraser and Purves, 1960, Bull. Brit. Mus. (Nat. Hist.), Zool., 7: 57 et seq., fig. 26 (table) [auditory system; classification].— Yuen, 1961, Science, 134: 1011 [bow wave riding].

Gudamu Gray, 1868, Synopsis whales and dolphins Brit. Mus., p. 6 [subgenus of Clymenia; type species: Clymenia gudamu (sic=Delphinus gadamu Owen=Tursiops truncatus aduncus Ehrenberg), by monotypy; spelling of generic name ostensibly a lapsus for the specific tautonym].

Type species: The tautonymic *Tursiops tursio* of authors or the "souffleur" of the French coast (= *Tursiops truncatus* Montagu= *Delphinus nesarnack* Lacépède), by original designation.

DISTRIBUTION: In the Atlantic: from the North and the Norwegian Seas to the Mediterranean and Black Seas and South Africa on the east, and from southern Greenland to Patagonia on the west; in the Pacific: from California on the east, Japan on the west, to Chile, and Australia, and New Zealand, respectively; in the Indian Ocean: from Australia to Africa.

Remarks: The species of *Tursiops* recognized are *T. truncatus* Montagu (= *T. nesarnack* Lacépède) and *T. gilli* Dall. The first may be a composite of several species or all may be one as treated by Tomilin (1957, p. 562). A taxonomic revision of this popularly known and widely distributed group of dolphins is urgently needed.

## Tursiops truncatus aduncus Ehrenberg

Delphinus aduncus Ehrenberg, 1832, in Hemprich and Ehrenberg, Symbolæ Phisicæ Mammalia, 2: ftn. 1 (last page of fascicle headed "Herpestes leucurus H. E.").

Tursiops aduncus, Fraser, in Ellerman and Morrison-Scott, 1951, Checklist of Palaearctic and Indian Mammals, 1758–1946, p. 736 [Indian: Red Sea, India, Java, Sumatra, South Africa; S. Pacific: Australia; synonyms: abusalam, hamatus, perniger, catalania, gadamu, caerulescens].

Delphinus hamatus Wiegmann, 1841 (or earlier), Schreber's Säugthiere, 7: pl. 369 (skull) [Indian: Red Sea (type locality); type a skull only, collected by Hemprich and Ehrenberg].—Schlegel, 1841, Abh. Gebiete Zool. Vergl. Anat., 1: 25, ftns. [regarded as a synonym of D. tursio (= T. truncatus)].—Wagner, 1846, Schreber's Säugthiere, 7: 324 [in synonymy of D. abusalam; type locality: Red Sea].

Delphinus abusalam Rüppell, 1842, Mus. Senckenbergianum (1845), 3: 140, pl. 12 (animal, skull, sternum, hyoid, alimentary tract) [Indian: Red Sea (type locality); type skin and skull in Senckenberg Museum].— True, 1889, Bull. U.S. Nat. Mus., 36: 41, 159, pl. 9, fig. 1 (animal), fig. 2 (skull) [characters].

[Tursiops aduncus] abusalam, Trouessart, 1904, Cat. Mamm., Suppl., p. 765 [classification].

Delphinus salam [sic], Van Bénéden, 1886, Ann. Mus. Nat. Hist. Belgique, Paléontologie, 13: 111 [lapsus for Delphinus abusalam Rüppel].

Delphinus perniger Blyth, 1848, Journ. Asiatic Soc. Bengal, 17: 249, 250 [Indian: Bay of Bengal (type locality); type, stuffed skin, Calcutta

Museum].—Gray, 1866, Cat. seals and whales Brit. Mus., p. 249 [Indian: Bay of Bengal].

Steno perniger, Blanford, 1891, Fauna British India, p. 583 [Indian: India (Vizagapatam), Pakistan (Karachi), Australia; type a rostrum of skull only; gadamu Owen a synonym].

[Steno (Sotalia)] perniger, Trouessart, 1898, Cat. Mamm., p. 1026 [classification].

[Sotalia] perniger, Trouessart, 1904, Cat. Mamm., Suppl., p. 763 [classification].

Tursiops catalania Gray, 1862, Proc. Zool. Soc. London, 1862: 143 [S. Pacific: Australia (type locality: off Cape Melville, northeastern Queensland); cotypes, two skulls, British Museum (Natural History); collected by John Macgillivray].—Lydekker, 1903, Bombay Nat. Hist. Soc., 15: 408, pl. c (animal) [Indian: India (Trivandrum beach, Travancore); characters].—True, 1914, Ann. Durban Mus., 1: 10 [S. Pacific: Australia (Cape Melville; Cape Flattery); N. Pacific: China Sea; S. Atlantic: South Africa (Cape of Good Hope); Indian: Natal].—Weber, 1923, Die Cetaceen der Siboga-Expedition, Siboga Expeditie, 58: 6 [Indian: New Guinea (Sisih); Indonesia (Cheribon, Java; Lamakera, Solor; Deli, Sumatra)].

Tursio catalania, Gray, 1868, Synopsis whales and dolphins Brit. Mus., p. 7 [classification].

Tursiops nesarnack catalania, Hershkovitz, 1963, Journ. Mammal., 44: 100 [S. Pacific: Galapagos (Indefatigable Island); Peru (Talara, Piura); synonyms: nuuanu, gephyreus].

Steno? Gadamu Gray, 1866, Cat. seals and whales Brit. Mus., p. 394 [prior publication of name and description from Owen, 1866, manuscript (see below)].

Delphinus (Steno) gadamu Owen, 1866, Trans. Zool. Soc. London, 6: 17, pl. 3 (animal), pl. 4 (skull) [Indian: India (type locality: Vizagapatam, Madras); type, figure of animal, and skull, British Museum, no. 1477a-66.2.5.3, presented by Sir Walter Elliot].

Clymenia gadamu, Gray, 1868, Synopsis whales and dolphins Brit. Mus., p. 6 [classification]; 1871, Suppl. Cat. seals and whales Brit. Mus., p. 70 [classification].

S[otalia] gadamu, Flower, 1884, Proc. Zool. Soc. London, 1883: 489, 513 [characters; classification].

Sotalia gadamu, Flower, 1885, List Cetacea Brit. Mus., p. 33 [type history; characters].—True, 1889, Bull. U.S. Nat. Mus., 36: 13, 154, pl. 2, fig. 1 (animal), fig. 2 (skull) [characters].

Sousa gadamu, Iredale and Troughton, 1934, Rec. Australian Mus., 6: 68 [Indian: Australia; S. Pacific: Australia (Queensland; New South Wales)].

[?] Delphinus caerulescens Giglioli, 1874, Zoologia Magenta I cetacei osservati durante il viaggio intorno al globo della R. pirocorvetta Magenta,

1865–1868, p. 88 [N. Pacific (type locality: entrance to Van Diemen (=Osumi) Strait between Kyushu and Tanega Islands, Japan); type seen at sea; regarded as probably identical with *Tursiops catalania* Gray. *Tursiops fergusoni* Lydekker, 1903, Journ. Bombay Nat. Hist. Soc., 15: 41, pl. 3 (animal) [Indian: India (type locality: Trivandrum, Travancore); name based on animal described and figured by Ferguson; type skeleton in British Museum]; 1905, Proc. Zool. Soc. London, 1905: 127 [immature of *T. catalania*]; 1909, Proc. Zool. Soc. London, 1908: ftn., p. 804 [synonym of *T. catalania*].

Tursiops gephyreus Lahille, 1908, Anal. Mus. Nac. Buenos Aires, 16: 347, fig. 1 (animal), fig. 3 (vertebrae), pls. 3, 4 (skull) [S. Atlantic: Argentina (type locality: Punta Lara, Río de La Plata; Quilmes, Río de La Plata); type, male, skin and skeleton, Museu Nacional de Buenos Aires; collected Sept. 7, 1907, by Nicolás Antierri].—True, 1914, Ann. Durban Mus., 1(1): 20, 24 [characters].

[?] Tursiops dawsoni Lydekker, 1909, Proc. Zool. Soc. London, 1908: 802-806 [Indian: India (type locality: off Trivandrum, southern India); name based on skeleton in British Museum and ms. notes

presented by Lt. Col. F. W. Dawson].

Tursiops nuuanu Andrews, 1911, Bull. Amer. Mus. Nat. Hist., 30: 233, pl. 10 (skull) [N. Pacific (type locality: 12° N., 120° W.); U.S.A. (Santa Catalina Island, Gulf of California); type a skull only, American Museum of Natural History, no. 35045; collected Dec. 6, 1906, by J. T. Nichols on the voyage of the "Nuuanu"].—Hall and Kelson, 1959, Mammals of North America, p. 822, fig. 450 (skull) [Pacific: Mexico (Baja California); 70 miles south of Panama; Galápagos (Post Office Bay)].—Van Gelder, 1960, American Mus. Novit., 1992: 17, fig. 10 (animal) [N. Pacific: Mexico (Tres Marías Island; Golfo de California, north to Isla Coronado and possibly Tiburón); characters; comparisons with T. gillii Dall].—Setzer, in Mayer, 1950, Amer. Midl. Nat., 43: 184, 185 [N. Pacific: 70 miles south of Panama; comparisons with T. gilli].

Tursiops maugeanus Iredale and Troughton, 1934, Mem. Australian Mus., 6: 68 [Indian: Australia (type locality: Tamar River, Tasmania); name based on Tursiops tursio, Scott and Lord (not Fabricius), 1919, Papers Roy. Soc. Tasmania, p. 96, pls. 23–25 (work not seen)]. Tursiops truncatus, Oliver, 1922, Proc. Zool. Soc. London, 1922: 584 [S. Pacific: New Zealand; Beluga kingii Hector 1873 (not Gray, 1846), a synonym].—Cabrera and Yepes, 1940, Mamíferos sudamericanos, p. 302, pl. 54 (animal) [S. Atlantic: Uruguay (Río de La Plata to Paysandú)].—Marelli, 1953, Anal. Mus. Nahuel Huapi, 3:142 [S. Atlantic: Argentina (Punta Blanca between La Plata and Magdalena, Buenos Aires)].—Rice, 1960, Journ. Mammal., 41: 407 [N. Pacific: U.S.A.

(Hawaii)].—Cabrera, 1961, Rev. Mus. Argentino Cienc. Nat. "Bernardino Rivadavia," 4: 612 [gephyreus a synonym].—Evans and

Dreher, 1962, Bull. S. California Acad. Sci., 61(4): 217 [sound production; comparison with *T. gilli*].—Rice, 1963, Norsk Hvalf.-Tid., 52: 156 [N. Pacific: Mexico (Isla Guadalupe, 29°03′)].

T[ursiops] truncatus, Schneider, 1946, Bol. Soc. Biol. (Concepción, Chile), 21:79 [S. Pacific: Chile (Concepción)].

Tursiops sp., Nichols, 1908, Bull Amer. Mus. Nat. Hist., 24: 217, figs. 1, 2 (animal), pl. 14 (skull) [N. Pacific: 12° N., 120° W.; comparisons with T. truncatus].

[Tursiops truncatus], Harrison, 1960, Malayan Nat. Journ., 14: 89 [N. Pacific: Sarawak].

Delphinus (tursio) Cymodoce, Burmeister (not Gray), 1867, Anal. Mus. Publ. Buenos Aires, 1: 306 [S. Atlantic: Uruguay-Argentina (Río de La Plata to Las Delicias above Paysandú, Río Uruguay)].

Tursio Cymodoce, Gray (not Gray), 1871, Suppl. Cat. seals and whales Brit. Mus., p. 74 ["River Urugua" (=Río Uruguay)].

Tursio cymodice [sic], Figueira (not cymodoce Gray), 1894, Anal. Mus. Nac. Montevideo, 2: 12 (separate) [Uruguay (Río de La Plata upstream to above Paysandú, Río Uruguay)].

Beluga Kingii, Hector (not Gray), 1873a, Trans. New Zealand Inst. (1872), 5: 163 [S. Pacific: Australia]; 1873b, Ann. Mag. Nat. Hist., (4), 11: 105 [S. Pacific: New Zealand; "a large white porpoise is frequently seen at certain seasons in Blind Bay, and may be this species"].

[?] Tursiops Gillii, Scammon (not Dall), 1874, Marine mammals of the north-western coast of North America, p. 101, fig. p. 102 (sketch of animal).

Tursiops gilli, Lydekker (part, not Dall), 1906, Proc. Zool. Soc. London, 1905: 127, pl. 13, fig. 1 (animal) [Indian: India (Trivandrum); teeth 27–26, 28–27 (p. 126 under Tursiops sp.)].

Tursiops tursio, Ihering (not Fabricius), 1892, Os mammiferos do Rio Grande do Sul, p. 104 [Brazil: (Canal do Norte, near the Rio Grande; Rio Grande do Sul); local names: "boto," "peixe-boto"].—Lahille, 1899, Primera reunión del Congreso Científico Latinoamericano de 1898, 3: 200 [S. Atlantic: Argentina (Río de La Plata; Golfo San Matias, Río Negro)].—Beddard, 1900, Book of whales, p. 275, pl. 17 (animal) [characters].—Lahille, 1905, Rev. Jardín Zool. Buenos Aires, 1905: 63 [characters].

Tursiops sp., Lévèque, 1963, Mammalia, 27(4): 609 [S. Pacific: Ecuador (Galápagos)].

Type: None in existence; name based on animal seen stranded.

Type locality: Belhosse Island, Red Sea.

DISTRIBUTION: Indian Ocean: from the Red Sea and South Africa to Bay of Bengal and Australia; Pacific: from New Zealand, Australia, Indonesia, and China Seas, on the west, to American waters from Baja California to Chile, on the east; Atlantic Ocean: from Golfo San Matías,

Río Negro, Argentina, to Río de La Plata and in the Río Uruguay to Paysandú, Uruguay, and off Rio Grande do Sul, Brazil.

Remarks: This subspecies may be too broadly conceived; however, clearcut morphological differences and physical barriers between the described forms, here treated as synonyms of *aduncus*, have not been demonstrated.

## Tursiops truncatus truncatus Montagu

Delphinus nesarnack Lacépède, 1804, Hist. Nat. Cétacées, pp. xliii, 307, pl. 15, fig. 2 (animal) [N. Atlantic (type locality); type, mounted specimen, originally in the Veterinary School of Alford (=Maisons Alfort), near Charenton, a suburb of Paris, figured by Bonnaterre (1789, Tabl. Encycl. Méth. Cétologie, pl. 11, fig. 1)].—Sonnini (Lacépède), 1804, Hist. Nat. cétacées, pp. 40, 423, fig. 1 (animal) [characters].

Delphinus Nesarnak [sic], Reichenbach, 1846, Volls. Naturg. Ins-und Auslandes, Cetaceen, p. 116, pl. 17, fig. 54 (animal) [characters; D. truncatus Montagu a synonym].

Tursiops nesarnack, Hershkovitz, 1961, Fieldiana, Zool., 39: 550 [type history; truncatus a synonym].

Delphinus truncatus Montagu, 1821, Mem. Wernerian Nat. Hist. Soc., 3: 75, pl. 3 (skull).

Tursio truncatus, Gray, 1843, List Mamm. Brit. Mus., p. 105 [listed]; 1866, Cat. seals and whales Brit. Mus., p. 258 [characters of type skull in British Museum].

Tursiops truncatus, True, 1903, Proc. Acad. Nat. Sci. Philadelphia, 55: 314 [Tursiops tursio authors (not Fabricius) a synonym; Delphinus siculus Rafinesque, 1810, possibly same species]; 1914, Ann. Durban Mus., 1(1): 10 [N. Atlantic: U.S.A. (Massachusetts to Florida, Texas); West Indies (Barbados); Baltic to Mediterranean; characters; variation in color of live and dead individuals].—Kellogg, 1928, Quart. Rev. Biol., 3: 45, 200, fig. 3 (skull) [characters; relationship; senses].— Huber, 1934, Carnegie Inst. Washington, Publ., 447: 120 [head anatomy; melon; blow-hole mechanism].—Fraser, in Norman and Fraser, 1938, Giant fishes, whales and dolphins, p. 326, fig. 90 (animal) [characters; habits; distribution].—Kellogg, 1940, Nat. Geogr. Mag., 77(1): 82, pl. 18 (animal), figs. pp. 71, 86 (captive animal feeding from hand), fig. p. 90 (animal sporting) [characters; habits; distribution].—Tavogla and Essapian, 1957, Zoologica, 42: 11, pl. 1 (courtship, copulation), pl. 2 (pregnancy, parturition), pl. 3 (suckling, infant care) [mating; breeding; parturition; infant care].—Tomilin, 1957, Mammals of eastern Europe and northern Asia, 9(Cetacea): 562 [taxonomy; distribution; synonyms: aduncus, abusalam, metis, cymodoce, eurynome, hamatus, perniger, catalania, erebennus, gadamu, obtusus, gilli, caerulescens, parvimanus, fergusoni, dawsoni, nuuanu].—Cadenat, 1957, Bull. Inst. Français Afrique Noire, 19(A): 1360 [N. Atlantic: Sénégal].—

Sergeant and Fischer, 1957, Journ. Fish. Res. Board Canada, 14(1): 86, fig. 4a (animal) [N. Atlantic: Canada (Peticodiak River, Salisbury, New Brunswick).—Cadenat, 1959, Bull. Inst. Français Afrique Noire, 21(A): 1391 [N. Atlantic: French West Africa].—Sergeant, 1959, Norsk Hvalf.-Tid., 48: 273, figs. 1-5 (sectioned teeth) [age determination from dental growth layers].—Hall and Kelson, 1959, Mammals of North America, p. 821, fig. (animal) [characters; synonymy].— Fraser and Purves, 1960, Bull. Brit. Mus. (Nat. Hist.), Zool., 7: 17 et seq., fig. 8 (skull), fig. 21 (pterygoid sinus), pls. 43, 44 (skull).—Norris and Prescott, 1961, Univ. California Publ. Zool., 63: 292, 300, 301, 311 [behavior; swimming].—W. N. Kellogg, 1961, Porpoises and sonar, 177 pp., illustr. [sound production; habits].—Caldwell, 1962, Science, 138: 907 [sound emission associated with fright].—Lilly, 1962, Proc. Amer. Philos. Soc., 106, (6): 520 [vocalization].—Essapian, 1962, Norsk Hvalf.-Tid., 5: 329, fig. 1 (albino mother and normal calf), fig. 2 (dorsum of mother) [N. Atlantic: U.S.A. (South Carolina); albino].— Tomilin, 1962, Cetacea of the U.S.S.R., Fauna U.S.S.R., 79: 162 [distribution, including southern coast of Greenland].

D[elphinus] troncatus [sic], F. Cuvier, 1836, Hist. Nat. Cétacés, p. 222

[characters; regarded as unidentifiable].

Delphinus compressicauda Lesson, 1828, Complément des oeuvres de Buffon, 1(Cétacés): 272 [S. Atlantic (type locality: 4° S., 26° W.)].

Delphinus Eurynome Gray, 1846, Zoology of the voyage of H.M.S. Erebus and Terror, 1(Mammalia): 38, pl. 17 (skull) [type locality: unknown; type skull in British Museum].

Tursio Eurynome, Gray, 1868, Synopsis whales and dolphins Brit. Mus., p. 7, pl. 17 (skull) [classification].

Delphinus Metis Gray, 1846, Zoology of the voyage of H.M.S. Erebus and Terror, 1(Mammalia): 38, pl. 18 (skull) [type locality unknown; type a skull only in British Museum, no. 357a].

Tursio Metis, Gray, 1868, Synopsis whales and dolphins Brit. Mus., p. 7 [classification]; 1871, Suppl. Cat. seals and whales Brit. Mus., p. 74 [N. Atlantic: West Africa].

Delphinus Cymodoce Gray, 1846, Zoology of the voyage of H.M.S. Erebus and Terror, 1(Mammalia): 38 [type locality: unknown; type a skull only in British Museum, no. 355a].

Tursio Cymodoce, Gray, 1868, Synopsis whales and dolphins Brit. Mus., p. 7, pl. 19 (skull) [classification].

[Tursiops tursio] cymodoce, Trouessart, 1898, Cat. Mamm., p. 1030 [classification].

Delphinus symodice [sic], Gray, 1870, Ann. Mag. Nat. Hist., (4), 6: 393 [misspelling of cymodoce Gray].

T[ursiops] cymodice [sic], Flower, 1884, Proc. Zool. Soc. London, 1883: 480, 482, 512 [characters; regarded as "closely allied, if not identical," with T. tursio (=truncatus)].

Delphinus cymodice [sic], Cabrera, 1961, Rev. Mus. Argentino Cienc. Nat. "Bernardino Rivadavia," 4(2): 612 [misspelling in synonymy of Tursiops truncatus].

Delphinus tursio obtusus Schlegel, 1862, Natuurlijke Historie van Nederland, Zoogdieren, pl. 13 (animal, skull) [N. Atlantic: Netherlands (type locality); type a mounted skin and skull in the Leiden Museum].

Delphinus erebennus Cope, 1865, Proc. Acad. Nat. Sci. Philadelphia, p. 281 [N. Atlantic: U.S.A. (type locality: Red Bank, opposite Philadelphia, Pennsylvania); type skeleton in Academy of Natural Sciences, Philadelphia].

Tursio subridens Flower, 1884, Proc. Zool. Soc. London, 1883: 481 [name ex True ms., based on papier maché casts of entire animal and two heads displayed at the International Fisheries Exhibition, London, 1883].

Tursiops parvimanus Van Bénéden 1886, Ann. Mus. Hist. Nat. Belge, Paléontologie, 13: 100 [type, mounted skin in Copenhagen Museum].—Lütken, 1887, Kongl. Dansk. Vidensk. Selsk. Skr. (6), 4: 354 [renaming and diagnosis in text of *Delphinus parvimanus*].—True, 1889, Bull. U.S. Nat. Mus., 36: 43, 159 [characters].

Delphinus parvimanus Lütken, 1887, Kongl. Danske Vidensk. Selsk. Skr., (6), 4: 337 [N. Atlantic (type locality: Adriatic Sea); type mounted skin and skeleton in Copenhagen Museum; name attributed to Reinhardt]; 1888, Ann. Nat. Hist., 2: 182 [English translation of original description in Danish].

Tursiops truncatus ponticus Barabash-Nikiforov, 1940, Fauna kitsobraznykh chernogo Moria [whales of the Black Sea], Izd Voronezh. Gas. Un-ta [Univ. Voronezh], p. 56, fig. 14 (animal), fig. 15 (skull) [U.S.S.R. (type locality: Black Sea at Novorosisk); type, male, skull no. 1, Laboratory of Marine Mammals, VNIRO, Moscow; 11 cotype skulls].

Delphinus tursio, Bonnaterre (not Fabricius), 1789, Cétologie, p. 21, pl. 11, fig. 1 (animal) [description of specimen in the Veterinary School of Alford, France].—Flower, 1880, Trans. Zool. Soc. London, (1880–85), 11: 1, pl. 2 (animal) [external characters].

Tursiops tursio, Gervais (not Fabricius), 1855, Hist. Nat. Mamm., 2: 323 [classification; characters].—Flower, 1885, List Cetacea Brit. Mus., p. 26 [type record].—True, 1889, Bull. U.S. Nat. Mus., 36: 32, 158, pl. 8, fig. 1 (animal), fig. 2 (skull) [N. Atlantic: North Sea to Mediterranean; New Jersey to Gulf of Mexico; characters; comparisons; synonyms: Delphinus truncatus Montagu, D. metis Gray, D. cymodice (=cymodoce) Gray, D. eurynome Gray, Phocaena compressicauda Lesson].—Kleinenberg, 1956, Mammals of the Black Sea and Sea of Azov [in Russian], Moscow, p. 86 [U.S.S.R. (Black Sea); tursio valid name for bottlenosed dolphin; ponticus Barabash a synonym].

[Tursiops] tursio, Elliot (not Fabricius), 1901, Field Columbian Mus.,

Zool. Ser., 2: 29, pl. 9 (skull) [N. Atlantic: U.S.A. ("Maine to Florida, Gulf of México")].

Type: Skull only, British Museum (Natural History), no. 353 h-62.7.18.15; collected July 3, 1814.

Type locality: Duncannon Pool, near Stoke Gabriel, about five miles up River Dart, Devonshire, England.

DISTRIBUTION: In the western Atlantic: from southern Greenland and New Brunswick to Florida, Texas, Mexico, and the Barbados in the Lesser Antilles; in the eastern Atlantic: from the Norwegian, North, and Baltic Seas to the Mediterranean and Black Seas, off Sénégal and the Congo and recorded from about 4° S., 26° W., at sea.

Remarks: The name *Tursiops nesarnack* Lacépède has had virtually no currency since its introduction in 1804. On the other hand, *Tursiops truncatus* Montagu, 1821, was used frequently during the last century and almost exclusively during the present for the nominate race of the bottlenosed dolphin. No other technical name for a dolphin has been used more widely in or outside the scientific literature. *Tursiops truncatus* Montagu, therefore, is treated here as a nomen conservandum.

## Tursiops gilli Dall

Tursiops Gillii Dall, 1873, Proc. California Acad. Sci., 5: 13; in Scammon, 1874, Marine mammals of the north-western coast of North America, p. 288 [characters].—True, 1889, Bull. U.S. Nat. Mus., 36: 43, 160, pl. 10, fig. 1 (animal), fig. 2 (skull) [characters]; 1914, Ann. Durban Mus., 1: 20, 24 [N. Pacific: Mexico (San Bartolomé Bay); U.S.A. (Monterey, California); characters; comparisons].

Tursiops gilli, Lydekker, 1905, Proc. Zool. Soc. London, 1905: 126 [part, of Dall only].—Lydekker, 1909, Proc. Zool. Soc. London, 1908: 804 [part, of Dall only].—Setzer, in Mayer, 1950, Amer. Midl. Nat., 43: 183 [N. Pacific: Mexico (Punta La Cholle, 6 miles north of Puerto Peñasco, Sonora); comparison with T. nuuanu].—Norris and Prescott, 1961, Univ. California Publ. Zool., 63: 292, 296, 300, 313 [N. Pacific: Mexico (Baja California; Golfo de California); U.S.A. (Los Angeles; San Diego); capture; behavior; swimining; reproduction; feeding; respiration].—Evans and Archer, 1962, Bull. S. California Acad. Sci., 61(4): 217 [scouting behavior and sound production].—Hershkovitz, 1963, Journ. Mammal., 44: 101 [regarded as valid species].—Orr, 1963, Journ. Mammal., 44: 424 [N. Pacific: U.S.A. (San Francisco Bay, California)].

Tursiops truncatus gillii, Tomilin, 1957, Mammals of eastern Europe and northern Asia, 9(Cetacea): 586 [N. Pacific; classification].

T[ursiops] t[runcatus] gilli, Tomilin, 1962, Cetacea of the U.S.S.R., Fauna U.S.S.R., 79: 162 [N. Pacific: Japan; China; U.S.A. (Oregon); Mexico (Baja California)].—Scheffer and Rice, 1963, U.S. Fish and

Wildlife Serv. Spec. Sci. Rep., 431: 7 [nuuanu Andrews regarded as a synonym].

Type: "Lower jaw, and outline of the animal drawn by Capt. Scammon"; mandible in U.S. National Museum, no. 13022; collected by C. M. Scammon.

Type locality: Monterey, California.

DISTRIBUTION: North Pacific, Hawaii, and from San Francisco Bay, California, south to Baja California and Puerto Peñasco, Sonora, Mexico.

Remarks: Tomilin (1962) includes waters of Japan, China, and Oregon in the range of his *Tursiops truncatus* (i.e., *gilli* of this catalog) but mentions no specific localities or other documentation.

## Genus LISSODELPHIS Gloger

Tursio Wagler, 1830, Nat. Syst. Amphibien, p. 34 [type species: Delphinus Peronii Cuvier, by monotypy; name preoccupied by Tursio Fleming, 1822 (=Physeter Linnaeus)].—True, 1889, Bull. U.S. Nat. Mus., 36: 77, 167 [taxonomy].

Lissodelphis Gloger, 1841, Gemein. Naturgesch., 1: 169 [type species: Delphinapterus Peronii (=Delphinus Peronii Lacépède), by monotypy].— Palmer, 1899, Proc. Biol. Soc. Washington, 13: 24 [nomenclature; synonyms: Tursio Wagler (preoccupied), Delphinapterus Gray (part), Leucorhamphus Lilljeborg 1861].—Winge, 1942, Interrelat. Mamm. Gen., 3: 252 [characters; classification].—Fraser and Purves, 1960, Bull. Brit. Mus. (Nat. Hist.), Zool., 7: 104, 107, fig. 26 (table) [auditory system; classification].

Delphinapterus Gray, 1846, Zoology of the voyage of H. M. S. Erebus and Terror, 1(Mammalia): 36 [type species: Delphinus peronii Lacépède, by monotypy; generic name preoccupied by Delphinapterus Lacépède, 1804, a genus of monodontid whale. Delphinapterus is employed by Lesson and Garnot (1826, Zool. Voy. Coquille, 1(1): 179) and Lesson (1828, Compl. Buffon, Cétacés, p. 196) for peronii in the sense conceived by Lacépède, hence not as a homonym].

Leucorhamphus Lilljeborg, 1861, Upsala Univ. Arsskrift, Math. Naturvet., pp. 4, 5 [new name for *Delphinapterus* Gray 1846, not *Delphinapterus* Lacépède, 1804; type species: *Delphinus Peronii* Lacépède by original designation].

Type species: Delphinus peronii Lacépède, by monotypy.

Distribution: South Atlantic (38° S., 8° W.) to Australia, Tasmania, New Zealand, Tierra del Fuego, and Chile; in North Pacific (*Lissodelphis borealis* Peale) recorded from Bering Sea to Japan and California.

## Lissodelphis [peroni] peroni Lacépède

Delphinus Peronii Lacépède, 1804, Histoire naturelle des cétacés, pp. xliii, 316.—Sonnini (Lacépède), 1804, Histoire naturelle des cétacés, pp. 42, 435 [south of Diemen's Land, about 44° S.].—Quoy and Gaimard,

1824, Voyage autour du monde . . . de S. M. l'Uranie et la Physicienne, Zoology, p. 87 [S. Pacific: 2° S. near New Guinea].—Lacépède, 1837, Histoire naturelle des cétacés (1804), p. 104 [observed in large herds by Péron "dans les environs du cap sud de la Terre de Diémen [=Tasmania] et par conséquent vers le quarante quatrième degré de latitude australe"].—Bennett, 1840, Narrative of a whaling voyage around the globe, 2: 235, fig. (animal) [S. Atlantic: Brazil Bank; 40° S.–54° S., 50° W.; Cape Horn.

Delphinus peroni [sic], Reed, 1904, Rev. Chilena Hist. Nat., 8: 138 [S. Pacific: Chile (Bahía de Concepción); characters].—Schlegel, 1841, Abhandlungen aus dem Gebiete der Zoologie und vergleichenden Anatomie, 1(Cetaceen): 24 [Indian: Australia (type locality: Van Diemensland); S. Atlantic: Straits of Magellan; South Africa (Cape of Good Hope); S. Pacific: New Guinea].

Delphinapterus Peronii, Lesson, 1826, Zool. Voy. La Coquille, p. 179. pl. 9, fig. 1 (animal) [S. Atlantic: Falkland Islands; S. Pacific: Chile (Straits of Magellan near Cape Pilar); Australia; characters]; 1828, Complément des oeuvres de Buffon, 1: 197, 440, pl. 4, fig. 1 (animal) [characters].—Gray, 1846, Zoology of the voyage of H. M. S. Erebus and Terror, 1(Mammalia): 36, pl. 15 (animal) [characters of type skull in Paris Museum; synonyms: leucorhamphus [sic] Péron, Delphinus bicolor Stephenson, ms. name; S. Pacific: New Guinea; 46° 48′ S., 142° W.].— D'Orbigny and Gervais, 1847, Voyage Amérique Mérid., 4(Mamm.): 32, pl. 21, fig. 5 (animal) [southern seas, 48°-64° S.; S. Pacific: Chile (Cape Horn)].—Gray, 1850, Cat. Mamm. Brit. Mus., Cetacea, p. 103 [characters]; 1866, Cat. seals and whales Brit. Mus., p. 276 [S. Pacific: Chile (50° 35′ S.); characters; synonymy; distribution]; 1871, Suppl. Cat. seals and whales Brit. Mus., p. 72 [S. Pacific: New Guinea].— Malm, 1871, Kongl. Svenska Vetenskap Akad. Handl., 9(2): 66, pl. 4, fig. 39 (carpus) [S. Pacific: Chile; osteology].

Tursio peronii, True, 1889, Bull. U.S. Nat. Mus., 36: 78, 82, 167, pl. 21, fig. 1 (animal), fig. 2 (skull) [characters; comparisons with Delphinapterus borealis Peale; distribution].—Lahille, 1899, Primera reunión del congreso latinoamericano, 3: 200 [S. Atlantic: Argentina (Isla Año Nuevo, Tierra del Fuego)].—Beddard, 1900, Book of whales, p. 284 [Delphinapterus borealis Peale doubtfully separable].—Dabbene, 1902, Anal. Mus. Buenos Aires, (3), 1: 350 [S. Atlantic: Argentina (Tierra del Fuego)].—Lahille, 1905, Rev. Jardín Zool., Buenos Aires, 1905: 58 [characters; distribution].—Schneider, 1946, Bol. Soc. Biol. Concepción (Chile), 21: 79 [S. Pacific: Chile (Concepción); frequent].—Lillie, 1915, British Antarctic ("Terra Nova") Expedition, 1910, Zool., 1(B): 121, fig. 14 (color pattern) [S. Pacific: 42°51′ S., 153°56′ E.; 47°04′ S., 171°33′ E.].

Lissodelphis peronii, Palmer, 1899, Proc. Biol. Soc. Washington, 13: 24 [type of Lissodelphis Gloger].—Oliver, 1922, Proc. Zool. Soc. London,

1922: 582 [S. Pacific: Tasmania to Chile].—Fraser, in Norman and Fraser, 1938, Giant fishes, whales and dolphins, p. 314, fig. 82 (animal) [characters; comparisons].—Cabrera and Yepes, 1940, Mamíferos sudamericanos, p. 297 [S. Pacific: Chile (Tierra del Fuego); characters].—Ellerman, Morrison, Scott, Hayman, 1953, Southern African mammals, p. 333 [S. Atlantic: 38°34′ S., 8°06′ E.].—Fraser, 1955, Bull. Brit. Mus. (Nat. Hist.), 2: 341 [circumglobal in southern hemisphere, 30° S.-60° S.; type locality: southern coast of Tasmania].—Mann, 1957, Invest. Zool. Chilenas, 4: 99 [S. Pacific: Chile; key characters].

L[issodelphis] peronii, Kellogg, 1940, Nat. Geogr. Mag., 77(1): 72 (in text) [characters; distribution].—Yañez, 1948, Rev. Biol. Marina,

Valparaiso, 1: 114 [S. Pacific: Chile; characters].

Delphinus leucoramphus Lacépède, 1804, Hist. Nat. cétacées, p. 316, ftn. [Péron's manuscript name for Delphinus Peronii Lacépède].—Péron, 1807, Histoire Voyage Terres Australes, 1: 217 [observed at sea north and east of 44° S., 141° W.].—Wagner, 1846, Schreber's Säughtiere, 7: 341 [characters].

D[elphinus] leucoramphus, Poeppig, 1828, Froriep Not., 20: 145 [S. Pacific: Chile (Cape Horn)].—Poeppig, 1835, Reise in Chile, Peru, Ama-

zonstr., 1: 30, ftn. [S. Pacific: Chile].

Prodelphinus leucoramphus, Van Bénéden and Gervais, 1868–1880, Ostéologie des cétacés, pl. 23, fig. 3 (skull) [specimen in Paris museum].

Delphinus leucorhamphus [sic], Gervais, in Van Bénéden and Gervais, 1868–1880, Ostéographie des cétacés, p. 605, pl. 38, fig. 3 (skull with caption *Prodelphinus leucoramphus*) [specimen in Paris museum].

Delphinapterus leucorrhamphus [sic], Philippi, 1893, Anal. Mus. Nat. Chile, (1) Zool., (6): 15, pl. 4, figs. 2, 3 (animal) [S. Atlantic: east of Pata-

gonia].

D[elphinus] bicolor Gray, 1846, Zoology of the voyage of H.M.S. Erebus and Terror, 1(Mammalia): 36, pl. 15 (animal) [Stevenson manuscript name in synonymy of Delphinapterus Peronii; S. Pacific (type locality: 46°48′ S., 142° W.)].

Delphinapterus Lessonii Philippi, 1893, Anal. Mus. Nat. Chile, 1(Zool.): 17, pl. 4, fig. 3 (animal) [name based on the Delphinapterus peronii of

Lesson, 1826].

[Prodelphinus] ?Gervaisi Trouessart, 1898, Cat. Mamm., p. 1036 [name based on skull in Paris Museum, recorded and figured as Prodelphinus leucoramphus in Van Bénéden and Gervais, 1868–1880, Ostéographie des cétacés, p. 605, pl. 38, fig. 3].

Tursio? chiloensis Philippi, 1900, Anal. Univ. Chile, p. 10 [work not seen; S. Pacific: Chile (type locality: Ancud, Chiloé island); type a pickup skull only, Museo Nacional de Santiago].—Philippi, 1901, Arch. Naturg., (67), 1: 276, fig. p. 277 (palate) [German translation of

original description].—Cabrera, 1961, Rev. Mus. Argentino Cienc. Nat. "Bernardino Rivadavia," 4: 615 [in synonymy of *Gephalorhynchus eutropia* Gray].

[Lissodelphis] chiloensis, Trouessart, 1904, Cat. Mamm., Suppl., p. 766 [classification].

Type: Name based primarily, if not solely, on Peron's manuscript account submitted to Lacépède. The type was observed Jan. 11, 1802, south of Tasmania. According to Gray (1846, Zoology of the voyage of H.M.S. Erebus and Terror, 1(Mammalia): 36), the skull is in the Paris museum. This skull may or may not be the type.

Type locality: South of Van Diemen's Land [=Tasmania] about latitude 44° S., 141° E.

DISTRIBUTION: In South American waters from southern Brazil and the Patagonian coast on the Atlantic to Concepción, Chile (37° S.), on the Pacific; also recorded from New Zealand and Tasmania to New Guinea in the western Pacific and off South Africa in the Atlantic. Nishiwaki (1957, Coll. Rep. Fish. Sci. Univ. Tokyo) records both *Lissodelphis peronii* and *L. p. borealis* Peale as occurring in Japanese waters.

## Lissodelphis [peroni] borealis Peale

Delphinapterus borealis Peale, 1848, in U.S. Exploring Expeditions, 8 (Mammalogy and Ornithology): 35, pl. 8, fig. 2 (animal).—Cassin, 1858, ibid., ed. 2, p. 30.

Tursio borealis, True, 1889, Bull. U.S. Nat. Mus., 36: 80, 168, pl. 22, fig. 1 (animal), fig. 2 (skull) [characters].

[Lissodelphis] borealis, Elliot, 1901, Field Columbian Mus., Zool. Ser., 2: 30, pl. 10, fig. 2 (skull) [characters; distribution].

Lissodelphis borealis, Norris and Prescott, 1961, Univ. California Publ. Zool., 63: 323 [N. Pacific: U.S.A. (Santa Barbara Island, California; Amacapa Island, California; Long Point, Los Angeles Co., California; Santa Catalina Island, California); behavior; morphology].

Type: None preserved, name and description based on animal taken at sea.

Type locality: North Pacific, 46°6′50″ N., 134°5′ W. (10° west of Astoria, Oregon).

DISTRIBUTION: North Pacific from Bering Sea to San Diego, California, on the east, Japan on the west.

#### Genus LAGENODELPHIS Fraser

Lagenodelphis Fraser, 1956, Sarawak Mus. Journ., 7(8, n.s.): 478-503 (name, p. 496).

Type species: Lagenodelphis hosei Fraser, by original designation.

DISTRIBUTION: Mouth of Lutong River, Baram, Sarawak, South China Sea.

### Lagenodelphis hosei Fraser

Lagenodelphis hosei Fraser, 1956, Sarawak Mus. Journ., 7(8, n.s.): 478–503 (name p. 496), fig. 1 (flipper bones), fig. 2 (skull), pl. 22 (skull), pls. 23–24 (skeleton, teeth).

Type: Skeleton, British Museum (Natural History) no. 1895.5.9.1; collected by C. Hose and purchased from Gerrard in 1895.

Type Locality: Mouth of Lutong River, Baram, Sarawak.

DISTRIBUTION: Known only from type locality.

### Genus LAGENORHYNCHUS Gray

Lagenorhynchus Gray, 1846a, Ann. Mag. Nat. Hist., 17: 84 [type: Lagenorhynchus albirostris Gray, by monotypy]: 1846b, Zoology of the voyage of H. M. S. Erebus and Terror, 1(Mammalia): 30, 34 [included species: L. leucopleurus Rasch (=L. acutus Gray), L. albirostris Gray, L. electra Gray, L. asia Gray (=L. electra Gray), L. acutus Gray]; 1866a, Proc. Zool. Soc. London, 1866: 216 [type species: L. albirostris]; 1866b, Cat. seals and whales Brit. Mus., p. 267 [review].—Flower, 1884, Proc. Zool. Soc. London, 1883: 489, 511 [taxonomy].—True, 1889, Bull. U.S. Nat. Mus., 36: 83, 168 [taxonomy].—Winge, 1942, Interrelat. Mamm. Gen., 3: 252, 286 [characters; classification; probably includes Cephalorhynchus, Sagmatias, and perhaps Feresa].—Fraser and Purves, 1960, Bull. Brit. Mus. (Nat. Hist.), Zool., 7: 6 et seq., fig. 6 (table) [auditory system; classification].

Electra Gray, 1866a, Cat. seals and whales Brit. Mus., p. 268 [included species: L. electra Gray (type by tautonomy), L. caeruleo-albus Meyen (= Stenella coeruleoalbus Meyen), L. asia Gray, L. acutus Gray, L. clanculus Gray, L. breviceps Gray, L. thicolea Gray; name preoccupied by Electra Lamouroux, 1816, a genus of Bryozoa]; 1866b, Proc. Zool. Soc. London, 1866: 216 [included species: L. electra Gray, L. asia Gray (=L. electra Gray), L. acutus Gray].—Nakajima and Nishiwaki, 1965, Sci. Rep. Whales Res. Inst., 19: 65 [characters; regarded as generically distinct].

Leucopleurus Gray, 1866, Proc. Zool. Soc. London, 1866: 216 [subgenus of Lagenorhynchus Gray; type species: Delphinus leucopleurus Rasch, by monotypy].

Sagmatias Cope, 1866, Proc. Acad, Nat. Sci. Philadelphia, 18: 294 [type species: Sagmatias amblodon Cope (=Lagenorhynchus cruciger Quoy and Gaimard), by monotypy].—True, 1889, Bull. U.S. Nat. Mus., 36: 106 [characters].—Kellogg, 1941, Field Mus. Nat. Hist., Zool. Ser., 27: 293 [characters; comparisons; synonym of Lagenorhynchus Gray].

Type species: Lagenorhynchus albirostris Gray, by monotypy.

DISTRIBUTION: Atlantic, Pacific, and Indian Oceans, from Greenland, northern Russia, Alaska, and Japan to pack ice in the Antarctic.

# Lagenorhynchus acutus Gray

Delphinus (Grampus) acutus Gray, 1828, Spicilegia Zoologica, 1: 2.

- Lagenorhynchus acutus, Gray, 1846, Zoology of the voyage of H.M.S. Erebus and Terror, 1(Mammalia): 36 [characters].—True, 1899, Bull. U.S. Nat. Mus., 36: 85, 169, pl. 23, fig. 1 (animal), fig. 2 (skull) [characters].—Sergeant and Fischer, 1957, Journ. Fish. Res. Board, Canada, 14(1): 95, fig. 6 (skull) [N. Atlantic: Canada (Trinity Bay, Newfoundland)].—Tomilin, 1962, Cetacea of the U.S.S.R., Fauna U.S.S.R., 92: 171, fig. 55 (animal), fig. 56 (skull) [Arctic: Spitzbergen; U.S.S.R. (Kanin Peninsula; Murman); N. Atlantic: U.S.S.R. (Baltic Sea); Norway (Lofsten Islands; Bergen)].—Van Deinse, 1931, De fossiele en recente Cetacea van Nederland, p. 270 [N. Atlantic: Netherlands].
- L[agenorhynchus] acutus, Flower, 1884, Proc. Zool. Soc. London, 1883: 492, 511 [characters; type history; synonyms: eschrichtii, leucopleurus, ?perspicillatus Cope, ?obliquidens Gill].
- Electra acuta, Gray, 1868, Synopsis whales and dolphins Brit. Mus., p. 7 [classification].
- Delphinus Eschrichtii Schlegel, 1841, Abhandlungen Gebiete Zool. Vergleich. Anat., 1: 23, pls. 1, 2 (skull), pl. 4, fig. 5 (teeth) [N. Atlantic: Great Britain (type locality: Faeroe Islands); type a skeleton in the Leiden Museum].
- Delphinus leucopleurus Rasch, 1843, Nyt. Mag. Naturv., 4: 100, pl. 2 (animal), pl. 3 (skeleton) [North Atlantic: Norway (type locality: Gulf of Christiania); type skeleton in Christiania Museum].—Guérin-Méneville, 1843, Rev. Mag. Zool., p. 369 [abstract of original description].
- Lagenorhynchus leucopleurus, Gray, 1866, Cat. seals and whales Brit. Mus., p. 273 [characters; taxonomy].
- Leucopleurus arcticus Gray, 1846, Zoology of the voyage of H. M. S. Erebus and Terror 1(Mammalia): pl. 12 (skull) [no text]; 1868, Synopsis whales and dolphins Brit. Mus., p. 7 [N. Atlantic (type locality: North Sea); new name for Delphinus leucopleurus Rasch].
- Leicopleurus [sic] arcticus, Tomilin, 1957, Mammals of eastern Europe and northern Asia, 9(Cetacea): 592 [misprint listed in synonymy of Lagenorhynchus acutus Gray].
- Lagenorhynchus perspicillatus Cope, 1876, Proc. Acad. Nat. Sci. Philadelphia, 28: 136, pl. 4 (animal) [N. Atlantic: U.S.A. (type locality: said to be Portland, Maine, but redetermined as Wood's Hole or Cape Cod, Massachusetts); cotypes, cast of entire animal and series of skulls and mandibles, U.S. National Museum, nos. 14228–14326, 14335, 14362–14373 (cf. Poole and Schantz, 1942, Bull. U.S. Nat. Mus., 178: 110); type history].
- Lagenorhynchus gubernator Cope, 1876, Proc. Acad. Nat. Sci. Philadelphia, 28: 138, pl. 4 (animal) [N. Atlantic: U.S.A. (Casco Bay, near Portland, Maine); cotypes, plaster casts, U.S. National Museum, nos. 12035, 12036, prepared and colored from fresh specimen (cf. Poole and Schantz, 1942, Bull. U.S. Nat. Mus., 178: 109)].

[Lagenorhynchus] bombifrons Cope, 1876, Proc. Acad. Nat. Sci. Philadelphia, 28: 138 (in text) [nomen nuclum or lapsus for L. gubernator Cope].

Type: Skull, originally in Brooke's Museum, London, and sold to the Leiden Zoological Museum (cf. Flower, 1884, Proc. Zool. Soc. London 1883: 492–493, for type history).

Type Locality: Unknown; determined as the Faeroe Islands, North Sea, on the basis of the provenance of the subjective snyonym *eschrichtii* Schlegel, by Gray (1846, Zoology of the voyage of H. M. S. Erebus and Terror, p. 36).

DISTRIBUTION: Arctic and North Atlantic from Barents Sea and Spitzbergen to Great Britain and the Netherlands, and from Greenland to Massachusetts.

## Lagenorhynchus albirostris Gray

Delphinus Tursio, Brightwell (not Fabricius), 1846, Ann. Mag. Nat. Hist., 17: 21, pl. 1 (animal).

Delphinus albirostris Gray, 1846, Ann. Mag. Nat. Hist., 17: 84.

Lagenorhynchus albirostris, Gray, 1846, Zoology of the voyage of H. M. S. Erebus and Terror, 1(Mammalia): 35, pl. 10 (animal), pl. 11 (skull) [characters].—Jonsgärd, 1962, Norsk Hvalf.-Tid., 51(1): 4 [N. Atlantic: Norway; characters].—Sergeant and Fischer, 1957, Journ. Fish. Res. Board Canada, 14(1): 93, fig. 4b (animal), fig. 5 (skull) [N. Atlantic: Canada (Conception Bay, Newfoundland)].—Tomilin, 1962, Cetaceans of the U.S.S.R., Fauna U.S.S.R., 79: 168, fig. 53 (animal), fig. 54 (skull) [N. Atlantic: Barents Sea; France; Davis Strait; Labrador; U.S.A. (Massachussetts!)].

Delphinus pseudotursio Reichenbach, 1846, Naturg. Ins.-und Auslandes, Cetaceen, pl. 24, fig. 7 (animal, *D. tursio* of Brightwell, 1846) [name based on the *D. tursio* of Brightwell (not Fabricius)].

Delphinus ibseni Eschricht, 1846, Kongl. Danske Vidensk. Selsk. Naturv. Math., Afh., 12: 297 [N. Atlantic: Denmark (type locality); type skeleton in Copenhagen Museum].

Type: Skeleton and figure of animal, British Museum (Natural History), no. 916a-48.7.12.12; collected by Mr. Brightwell.

Type locality: Great Yarmouth, England.

DISTRIBUTION: Arctic and North Atlantic Oceans from Barents Sea, Greenland Seas, and Davis Strait, south to Portugal on the east, Newfoundland on the west.

# Lagenorhynchus cruciger Quoy and Gaimard

Delphinus cruciger Quoy and Gaimard, 1824, Voyage autour du monde . . . Uranie et la Physicienne, Paris, Zool., p. 87, pl. 2, figs. 3, 4 (animal).—Lesson, 1827, Manuel Mamm., p. 407 [S. Pacific (49° S. between Cape Horn and Australia); characters]; 1834, Complément des oeuvres de Buffon, Cétacés, p. 238, pl. 6, fig. 2 (animal) [charac-

ters].—Flower, 1884, Proc. Zool. Soc. London, 1883: 511 [probably a *Lagenorhynchus*].—Liouville, 1913, Comp. Rend. Acad. Sci., Paris, 156: 90 [S. Pacific: (56°30′ S., 100° W.); polymorphism; taxonomic history].

Delphinus cruciger, d'Orbigny and Gervais, 1847, Voyage Amérique Mérid., 4(Mamm.): 32 [S. Atlantic: east and south of Cape Horn, from 57° to 76° S.].

Lagenorhynchus cruciger, Van Bénéden and Gervais, 1880, Ostéographie des cétacés, p. 598 ftn. 3 [classification; Delphinus bivittatus Lesson and Garnot a synonym].—True, 1889, Bull. U.S. Nat. Mus., 36: 84, 92, 170, pl. 25, fig. 1 (animal), fig. 2 (skull) [characters; comparisons; type of cruciger, d'Orbigny and Gervais, a skull in Paris Museum, no. a3045; clancula Gray a synonym; cruciger Quoy and Gaimard questionably included].-Lahille, 1899, Primera reunión del congreso latinoamericano, 3: 201 [S. Atlantic: Argentina (Bahía Thetis, Isla de los Estados, Tierra del Fuego)].—Dabbene, 1902, Anal. Mus. Buenos Aires, (3), 1: 350 [S. Atlantic: Argentina (Tierra del Fuego)].— Racovitza, 1903, Expédition Antarctique Belgique, Cetacea, p. 44 [S. Atlantic: 58°43' S., 68°43' W.].—Lahille, 1905, Rev. Jardín Zool., Buenos Aires, 1905: 61 [characters; distribution].—Nichols, 1908, Bull. Amer. Mus. Nat. Hist., 24: 219, fig. 3 (animal) [S. Pacific: 49° S., 78° W.; characters].—Fraser, in Norman and Fraser, 1938, Giant fishes, whales and dolphins, p. 322, fig. 87 (animal) [characters].-Kellogg, 1941, Field Mus. Nat. Hist., Zool. Ser., 27: 304, 305 [characters; comparisons].—Bierman and Slijper, 1947, Proc. K. Nederlandsche Akad. Wet. Amsterdam, 50(10): 1359, 1362 [taxonomic review; synonyms: fitzroyi, obscurus, wilsoni, australis, superciliosus].-Olrog, 1950, Acta Zool. Lilloana, 9: 509 [S. Pacific: Chile (Beagle Bay; Nassau Bay; Wolleston Island)].—Sapin-Jaloustre, 1953, Mammalia, 17: 255, figs. 25a-b [sighting characters].—Mann, 1957, Invest. Zool. Chilenas, 4: 104 [S. Pacific: Chile; key characters].

L[agenorhynchus] cruciger, Yañez, 1948, Rev. Biol. Marina, Valparaiso, 1: 114 [S. Pacific: Chile (Tierra del Fuego)].

Electra crucigera, Gray, 1870, Ann. Mag. Nat. Hist., (4), 6: 393 [classification].

Phocæna crucigera, Philippi, 1893, Anal. Mus. Nac. Chile, (1), Zool. (6): 11, pl. 3, fig. 4 (animal, *P. bivittata ex* Lesson and Garnot), pl. 3, fig. 5 (animal ex Quoy and Gaimard) [characters].

Delphinus albigena Quoy and Gaimard, 1824, Voyage . . . S. M. l'Uranie et la Physicienne, Paris, Zool., 1: 87, pl. 11, fig. 2 (animal) [S. Pacific: type observed at sea between Cape Horn and Australia].

Delphinus bivittatus Lesson and Garnot, 1826, Voyage autour du monde, La Coquille, Zoologie, 1: 178, pl. 9, fig. 3 (animal) [S. Atlantic: type observed at sea about 140 leagues west of the Falklands en route from Cape Horn].—Lesson, 1826, Ferussac Bull. Sci. Nat., 7: 373

[characters].—Cunningham, 1868, Proc. Zool. Soc. London, 1868: 185 [S. Pacific: Chile (Straits of Magellan)].

[Delphinus] livittatus [sic], F. Cuvier, 1836, Hist. Nat. Cétacés, p. 225 [characters; regarded as not certainly identifiable].

Delphinus superciliosus Lesson and Garnot, 1826, Voyage autour du monde La Coquille, Zoologie, 1: 181 (description); Atlas, pl. 9, fig. 2 (animal) [S. Pacific: Australia (type locality: Castle-Forbes, 44° S., off Cape Diemen (=South Cape), Tasmania); type taken on board but, presumably, not preserved].—Lesson, 1826, Ferussac Bull. Sci. Nat., 7: 373 [characters]; 1834, Complément oeuvres de Buffon, 1(Cétacés): 238, pl. 6, fig. 1 (animal) [S. Atlantic: South Africa (Cape of Good Hope); characters].—Schlegel, 1841, Abhandlungen aus dem Gebiete der Zoologie und vergleichende Anatomie, 1(Cetaceen): 22, pls. 1, 2 (skull), pl. 4, fig. 4 (teeth) [characters; synonyms: obscurus Gray, fitzroyi Waterhouse].—Philippi, 1893, Anal. Mus. Nac. Chile, (1) Zool. (6): 6, pl. 1, fig. 1 (animal ex Lesson) [characters ex Lesson].—Kellogg, 1941, Field Mus. Nat. Hist., Zool. Ser., 27: 303, pl. 7, fig. 4 (animal) [S. Pacific: Australia (Tasmania); classification; characters; comparisons; regarded as specifically distinct from obscurus].

Lagenorhynchus superciliosus, True, 1889, Bull. U.S. Nat. Mus., 36: 62, 84, 92, 94, 171, pl. 25, fig. 3 (skull ex Schlegel) [characters; name based on Schlegel (1841), description of skull; type of superciliosus not extant and may not have been preserved].

[Lagenorhynchus] supercillosus [sic], Trouessart, 1904, Cat. Mamm., Suppl., p. 767 [classification; name a misspelling of L. superciliosus Lesson and Garnot].

Delphinus (Grampus) obscurus Gray, 1828, Spicilegia Zoologica, 1: 2, pl. 2, fig. 2 (animal, young), fig. 3 (adult), figs. 4, 5 (skull) [S. Atlantic: South Africa (type locality: Cape of Good Hope); types: stuffed skins of adults and young with skull inside, originally in the Royal College of Surgeons, London; adult with skull removed now in British Museum, no. 41.1733 (cf. Flower, 1885, List Cetacea Brit. Mus., p. 28)].

Delphinus obscurus, Gray, 1846, Zoology of the voyage of H. M. S. Erebus and Terror, 1(Mammalia): pl. 16 (skull) ["Southern Ocean", characters; synonyms: fitzroyi Waterhouse; superciliosus Garnot, Lesson; bivittatus Lesson, d'Orbigny]; 1850, Cat. Mamm. Brit. Mus., Cetacea, p. 107 [characters; synonymy includes cruciger Quoy and Gaimard; type transferred to British Museum].—Cassin, 1858, U.S. Expedition, Mammalia, p. 27, pl. 5, fig. 1 (animal) [S. Atlantic: Argentina (off coast of Patagonia); synonyms: cruciger, bivittatus, fitzroyi, australis].—Burmeister, 1867, Zeitschr. gesammten Naturw., 29: 3 [S. Atlantic: Argentina (Río de La Plata, 5 miles above Buenos Aires)].—Kellogg, 1941, Field Mus. Nat. Hist., Zool. Ser., 27: 298, pl. 6, fig. 1 (animal, cotype ex Gray, 1828) [taxonomy].

Delphinus (Tursio) obscurus, Burmeister, 1867, Anal. Mus. Publ. Buenos Aires, 1: 306 [S. Atlantic: Argentina (coast of Patagonia)].

Tursio obscurus, Gray, 1866, Cat. seals and whales Brit. Mus., p. 264 [characters; synonymy includes *Phocæna australis* Peale].—Philippi, 1896, Anal. Mus. Nac. Chile, Zool., Entr., 12a: 7 [discussion].

Clymenia obscura, Gray, 1868, Synopsis whales and dolphins Brit. Mus.,

p. 6, pl. 16 (skull) [characters].

C[lymenia] obscura, Gray, 1870, Ann. Mag. Nat. Hist., (4), 6: 393 [classification].—Flower, 1884, Proc. Zool. Soc. London, 1883: 495, 512 [classification; breviceps Gervais (1880, Ostéographie, pl. 36, fig. 2) a synonym].

Prodelphinus obscurus, Flower, 1885, List Cetacea Brit. Mus., p. 28 [S. Pacific: Chile (Coquimbo); type: stuffed skin with skull, now in British Museum; synonyms: similis Gray, thicolea Gray].

Lagenorhynchus obscurus, True, 1889, Bull. U.S. Nat. Mus., 36: 62, 100, 104, 174, pl. 29, fig. 1 (animal), fig. 2 (skull) [characters; possible synonyms: breviceps Gervais, australis Peale, obliquidens Gill].—Lahille, 1899, Primera reunión del Congreso Latinoamericano, 3: 36 [S. Atlantic: Argentina (Bahía San Sebastián, Tierra del Fuego)].—Beddard, 1900, Book of whales, p. 263, pl. 15 (animal).—Dabbene, 1902, Anal. Mus. Buenos Aires, (3), 1: 350 [S. Atlantic: Argentina (Tierra del Fuego)].-Lahille, 1905, Rev. Jardín Zool., 1905: 62 [S. Atlantic: Argentina (Buenos Aires); S. Pacific: Chile; characters].-Wilson, 1907, National Antarctic Expedition, Brit. Mus., 2:8 [Antarctic seas].— Lillie, 1915, British Antarctic (Terra Nova) Expedition, 1910, Zoology, 1(3): 122, pl. 8, figs. 2-4 (variation in color pattern) [S. Atlantic: 35°57′ S., 18°49′ E.; S. Pacific: southern Australia and New Zealand waters].—Oliver, 1922, Proc. Zool. Soc. London, 1922: 581 [Cape seas and southern seas to 58° S.].—Iredale and Troughton, 1934, Mem. Australian Mus., 6: 67 [Indian: Tasmania; synonyms: fitzroyi Waterhouse, cruciger d'Orbigny and Gervais, clanculus Gray, latifrons True].-Fraser, in Norman and Fraser, 1938, Giant fishes, whales and dolphins, p. 324, fig. 89 (animal) [characters].—Kellogg, 1941, Field Mus. Nat. Hist., Zool. Ser., 27: 298, fig. 2 (animal) [characters; synonyms: fitzroyi, breviceps, posidonia].—Sapin-Jaloustre, 1953, Mammalia, 17: 255 [sighting characters].—Mann, 1957, Invest. Zool. Chilenas, 4: 104 [S. Pacific: Chile; key characters]. L[agenorhynchus] obscurus, Schneider, 1946, Bol. Soc. Biol. Concepción (Chile), 21: 80 [S. Pacific: Chile (Concepción)].—Yañez, 1948, Rev. Biol. Marina, Valparaiso, 1: 114 [S. Pacific: Chile (Tierra del Fuego to Coquimbo); fitzroyi a synonym].

Fuego to Coquimbo); *fitzroyi* a synonym].

Delphinus obscurus (variété), Quoy and Gaimard, 1830, Voyage de découverte de l'Astrolabe, Zoologie, 1: 151, pl. 28, fig. 3 (animal) [specimen examined and figured in the Natural History Museum

of Capetown].—Kellogg, 1941, Field Mus. Nat. Hist., Zool. Ser., 27: 299, pl. 7, fig. 2 (animal ex Quoy and Gaimard) [taxonomy]. Delphinus Fitzroyi Waterhouse, 1838 Proc. Zool. Soc. London, 1838: 23; 1839, Zoology of the voyage of the Beagle, pt. 2 (Mammalia): 25, pl. 10 (animal) [S. Atlantic: Argentina (type locality: Golfo San José, Chubut, coast of Patagonia, 42°30′ S.); type a female, rostrum and anterior portion of lower jaw, in British Museum, collected by Charles Darwin].—Flower, 1884, Proc. Zool. Soc. London, 1883: 490, 511 [regarded as possibly a Lagenorhynclus].—Kellogg, 1941, Field Mus. Nat. Hist., Zool. Ser., 27: 301, pl. 6, figs. 2, 4 (animal), fig. 3 (animal, type ex Waterhouse) [S. Atlantic: Argentina (Golfo de San Matías; Bahía San José); taxonomy].

Lagenorhynchus fitzroyi, Flower, 1885, List Cetacea Brit. Mus., p. 23 [type history].—True, 1889, Bull. U.S. Nat. Mus., 36: 87, 170, fig. 1 (beak), pl. 24, fig. 1 (animal) [regarded as probably identical with L. clanculus Gray].—Beddard, 1900, Book of whales, p. 264 [synonyms: cruciger Quoy and Gaimard, clanculus Gray].—Fraser, in Norman and Fraser, 1938, Giant fishes, whales and dolphins, p. 324, fig. 88 (animal) [characters].—Bierman and Slijper, 1947, Proc. Nederlandsche Akad. Wet. Amsterdam, 50(10): 1357 [characters; distribution; synonyms: posidonia Philippi, burmeisteri Moreno (=Cephalorhynchus commersoni Lacépède)].

Lagenorhynchus Fitzroyi, Lahille, 1892, Primera reunión del Congreso Latinoamericano, 3: 36 [S. Atlantic: Argentina (Bahía San Matías, Río Negro)].—Dabbene, 1902, Anal. Mus. Buenos Aires, (3), 1: 350 [S. Atlantic: Argentina (Tierra del Fuego)].—Lahille, 1905, Rev. Jardín Zool. Buenos Aires, 1905: 61 [characters; distribution].—Gallardo, 1912, Anal. Mus. Nac. Hist. Nat., Buenos Aires, 23: 391, fig. 1 (animal), fig. 2 (head) [S. Atlantic: Argentina (Mar del Plata, Buenos Aires); may be same as obscurus].—Liouville, 1913, Deuxième Expéd. Antarctique Française, 1908–1910, pp. 1, 105, fig. 17 (hand), pls. 8, 9 (animals; color variation) [taxonomic history; variation in color pattern; synonyms: bivittatus Lesson, cruciger d'Orbigny, clanculus Gray].—Sapin-Jaloustre, 1953, Mammalia, 17: 255, fig. 25e (animal) [sighting characters].

Lagenorhynchus fitzroy [sic], Bini, 1951, Boll. Pesca, Pisc. Idrobiol., Minist. Agric. For., (27), 6(1): 91, fig. 12 (animals), fig. 13 (head) [S. Pacific: Peru (coast of Atico, Arequipa)].

Phocæna fitzroyi, Philippi, 1893, Anal. Mus. Nac. Chile, (1), Zool., 6: 13, pl. 5, fig. 2 (animal ex Waterhouse) [like posidonia Philippi].

Phocæna Homei A. Smith, 1829, Zool. Journ., 4: 440 [S. Atlantic: South Africa (type locality: Table Bay and Cape of Good Hope); type in the South African Museum].

Lagenorhynchus clanculus Gray, 1846, Zoology of the voyage of H.M.S. Erebus and Terror, 1(Mammalia): pl. 35 (skull), no text [name based

on figure of skull only without other data]; 1849, Proc. Zool. Soc. London, 1849: 2 [Pacific: type locality not specified; type skull in British Museum from Dr. Dickie's collection]; 1850, Cat. Mamm. Brit. Mus., Cetacea, p. 102 [characters]; 1866, Cat. seals and whales Brit. Mus., p. 271 [characters].—Flower, 1885, List Cetacea Brit. Mus., p. 23 [type skull, Brit. Mus., no. 935a-49.5.25.3; Dickie collection, purchased 1849].

Electra clancula, Gray, 1868, Synopsis whales and dolphins Brit. Mus., p. 7, pl. 35 (skull) [characters]; 1870, Ann. Mag. Nat. Hist., (4), 6: 393 [classification]; 1871, Suppl. Cat. seals and whales Brit. Mus., p. 77 [part, not clancula Hector of New Zealand].—Malm, 1871, K. Svenska Vetenskaps Akad. Handl., 9(2): 68 [S. Atlantic: Chile (Cape Horn); characters; superciliosus Lesson a synonym].

Delphinus breviceps, Wagner, 1846, Schreber's Säugthiere, 7: 427, pl. 368, fig. 1 (animal, "dauphin à museau court" ex Hombron and Jacquinot, 1842–53, Voyage au Pôle Sud, pl. 22, fig. 1) [S. Atlantic: Argentina (type locality: Río de La Plata, Buenos Aires)].—Jacquinot and Pucheran, 1853, Voyage au pôle sud et dans l'Océanie sur les corvettes l'Astrolabe et la Zélée, Zool., 3: 39, 40, 42 [characters; comparisons; type now represented by skull and palatal fragment (cf. Hombron and Jacquinot, 1842–53, op. cit., pl. 23, figs. 5, 6, for complete skull)].—Kellogg, 1941, Field Mus. Nat. Hist., Zool. Ser., 27: 301–302, pl. 7, fig. 1 (animal ex Hombron and Jacquinot) [type history; regarded as a color variant of fitzroyi].

Lagenorhynchus breviceps, Gray, 1866, Cat. seals and whales, p. 271 [classification].—Flower, 1884, Proc. Zool. Soc. London, 1883: 495 ["same as Gray's Delphinus obscurus"].—True, 1889, Bull. U.S. Nat. Mus., 36: 89 [taxonomy].

Electra breviceps, Gray, 1871, Suppl. Cat. seals and whales Brit. Mus., p. 76 [classification].

[Lagenorhynchus thicolea] breviceps, Trouessart, 1898, Cat. Mamm., p. 1038 [classification].

Lagenorhynchus thicolea breviceps, Lahille, 1914, Enumeración y zoogeografía de los mamíferos de la república Argentina, p. 3 [South Atlantic and Pacific Oceans].

Phocæna australis Peale, 1848, U.S. Exploring Expedition, 1838–42, 8(Mammalogy and Ornithology): 33 [S. Atlantic: Argentina (type locality: off coast of Patagonia; one day's sail north of the Straits of Le Maire between Staten Island and Cape San Diego, Tierra del Fuego); type seen Feb. 12, 1839, but not preserved].—Poole and Schantz, 1942, Bull. U.S. Nat. Mus., 178: 109, 576 [no type in existence, "nothing is known about this specimen"].

Lagenorhynchus australis, Kellogg, 1941, Field Mus. Nat. Hist., Zool. Ser., 27: 296, pl. 8, fig. 1 (animal, type ex Cassin), fig. 2 (animal), pl. 9 (animals), pls. 10–12 (skull) [S. Pacific: Chile (Chiloe Is.); taxonomy;

characters; type history; Sagmatias amblodon Cope a synonym].—Bierman and Slijper, 1947, Proc. K. Nederlandsche Akad. Wet. Amsterdam, 50(10): 1358 [characters; taxonomy; regarded as a synonym of cruciger].—Fraser, in Norman and Fraser, 1949, Giant fishes, whales and dolphins, p. 321, pl. 88 (animal) [characters; distribution; animal not listed in earlier editions].—Hamilton, 1952, Comun. Zool. Mus. Hist. Nat., Montevideo, 4(66): 4 [S. Atlantic: Falkland Islands; characters; habits; food; speed (9 knots per hour); regarded as distinct from obscurus].—Mann, 1957, Invest. Zool. Chilenas, 4: 104 [S. Pacific: Chile; key characters].

Lagenorhynchus? Nilssonii Gray, 1864, Proc. Zool. Soc. London, 1864: 238 [new name for the Delphinus obscurus of Nilsson (Skand. Fauna) believed to be from the North Sea (cf. Lilljeborg, 1866, Syn. Cetaceans, Mammalia, Ray Soc., p. 231: Delphinus obscurus of Nilsson (=Lagenorhynchus

obscurus Gray) based on a skull from unknown locality)].

Sagmatias amblodon Cope, 1866, Proc. Acad. Nat. Sci. Philadelphia, 18: 294 [type skull only, U.S. National Museum, no. 3887; collected by the ship Vincennes of the U.S. Exploring Expedition (1838–1842); type locality unknown, "taken off the ship Vincennes of the U.S. Exploring Expedition . . . Dr. Charles Pickering, naturalist on board that vessel . . . has no record or recollection of the capture of such a species"].—True, 1889, Bull. U.S. Nat. Mus., 36: 106, 175 [characters].—Poole and Schantz, 1942, Bull. U.S. Nat. Mus., 178: 112 [type history].—Kellogg, 1941, Field Mus. Nat. Hist., Zool. ser., 27: 293 [a synonym of Lagenorhynchus australis Peale].

Phocena posidonia Philippi, 1893, Anal. Mus Nac. Chile, (1), Zool., 6: 9, 14, pl. 2, fig. 1 (animal) [S. Pacific: Chile (type locality: 48°10′ S., 77° W.); type a female, skin and skull, in the Santiago de Chile Museum].—Kellogg, 1941, Field Mus. Nat. Hist., Zool. Ser., 27: 302, pl. 7, fig. 3 (animal, ex Philippi) [doubtfully distinct from obscurus].—Bierman and Slijper, 1947, Proc. K. Nederlandsche Akad. Wet., 50:

1358 [taxonomy; synonym of cruciger, by implication].

Lagenorhynchus posidonia, True, 1903, Proc. Biol. Soc. Washington, 16: 137 [classification; possibly same as fitzroyi].

Phocæna D'Orbignyi Philippi, 1893, Anal. Mus. Nac. Chile, (1), Zool., 6: 10, pl. 2, fig. 2 (animal) [new name for cruciger d'Orbigny and Gervais (not Quoy and Gaimard)].

L[agenorhynchus] latifrons True, 1889, Bull. U.S. Nat. Mus., 36: 90 [ms. name in synonymy of L. cruciger based on skull, Paris Museum, no.

a3041, from New Zealand].

Lagenorhynchus wilsoni Lillie, 1915, British Antarctic (Terra Nova) Expedition, 1910, Zool., 1(3): 85, 123 [Antarctic: type locality: between 65° S.-54° S.; name based on a dolphin seen at sea and on individuals described and figured by Wilson (1907), Nat. Antarctic Exped., 1901–1904, Zool., Mamm., p. 9, fig. 7].—Bierman and Slijper,

1947, Proc. K. Nederlandsche Akad. Wet., 50: 1352, fig. 1 (animal) [S. Atlantic: 48°59′ S., 6°36′ E.; 46°52′ S., 8°30′ E.: S. Pacific: 55°–60° S., 135° E. (Wilson, 1907); 54°–65° S., 157° E., 88° W. (Lillie, 1915)]; 1948, Proc. K. Nederlandsche Akad. Wet., 51: 129 [regarded as a synonym of *cruciger*].

L[agenorhynchus] wilsoni, Fraser, in Norman and Fraser, 1938, Giant fishes, whales and dolphins, p. 322 ["nearly allied to if specifically distinguishable from [L. cruciger]"].

Type: None in existence; name based on animals seen at sea.

Type locality: Pacific Ocean, latitude 49° S., between Cape Horn and Australia.

DISTRIBUTION: South Pacific and Atlantic Oceans to the ice packs; on South American coasts from Cape Horn to Río de La Plata (35° S.) on the Atlantic and to Atico (16° S.) on the Pacific.

## Lagenorhynchus electra Gray

Lagenorhynchus Electra Gray, 1846, Zoology of the voyage of H. M. S. Erebus and Terror, 1(Mammalia): 35, pl. 13 (skull); 1850, Cat. Mamm., Brit. Mus., Cetacea, p. 100 [characters]; 1866, Cat. seals and whales Brit. Mus., p. 268 [characters].

L[agenorhynchus] electra, Flower, 1884, Proc. Zool. Soc. London, 1883: 490, 511 [taxonomy; synonyms: L. asia Gray, Delphinus fusiformis Owen].

Lagenorhynchus electra, Flower, 1885, List Cetacea Brit. Mus., p. 23 [type skull only, Brit. Mus., 359a; synonyms: Lagenorhynchus asia Gray, 1846, Delphinus fusiformis Owen, 1866, from Madras].—True, 1889, Bull. U.S. Nat. Mus., 36: 100, 173, pl. 28, fig. 1 (animal), fig. 2 (skull) [Indian: India; N. Pacific: U.S.A. (Hawaii); taxonomy; characters; synonyms: Lagenorhynchus asia Gray, Delphinus fusiformis Owen, Phocaena pectoralis Peale].—Beddard, 1900, Book of whales, p. 264 [Indian; S. Pacific; characters].—Goodwin, 1945, Journ. Mammal., 26: 195, fig. (animal) [N. Atlantic: 03°03′ N., 24°40′ W.].—Bierman and Slijper, 1947, Proc. K. Nederlandsche Akad. Wet., 50: 1361 [N. Pacific: U.S.A. (Hawaii); Indian: India (Vizagapatam, Madras); Indonesia (Solor); N. Atlantic: Sénégal; Guinea; taxonomy]; 1948, Proc. K. Nederlandsche Akad. Wet., 51: 130 [tropical seas north of 10° S.].

Electra electra, Nakajima and Nishiwaki, 1965, Sci. Rep. Whales Res. Inst., 19: 65, figs. 1, 3 (animal), fig. 2 (male genitalia), fig. 4 (dorsal fin), fig. 5 (flukes), fig. 6 (vertebrae), fig. 7 (hyoid), fig. 8 (pelvic bone), pl. 1 (head), pl. 2 (skull and dentition), pl. 3 (flippers), pls. 4, 5 (skull), pls. 6, 7 (postcranial skeleton) [N. Pacific: Japan (Hiratsuka Beach, Sagami Bay, Honshu); characters; taxonomy].

Lagenorhynchus Asia Gray, 1846, Zoology of the voyage of H. M. S. Erebus and Terror, 1(Mammalia): 35, pl. 14 (skull) [locality unknown; type skull in British Museum no. 358a].

Electra Asia, Gray, 1868, Synopsis whales and dolphins Brit. Mus., p. 7, pl. 14 (skull) [classification].

Delphinus pectoralis Peale, 1848, U.S. Exploring Expedition, 8(Mammalogy and Ornithology): 32, pl. 6, fig. 1 (animal) [N. Pacific: U.S.A. (type locality: Hilo Bay, Hawaii); type a mandible, U.S. National Museum, no. 4108; collected by U.S. Exploring Expedition].

Lagenorhynchus pectoralis, Cassin, 1858, U.S. Exploring Expedition, 8(Mammalogy and Ornithology): 28, pl. 5, fig. 2 (animal) [characters].

Delphinus (Lagenorhynchus) fusiformis Owen, 1866, Trans. Zool. Soc. London, 6: 22, pl. 5, fig. 1 (animal) [Indian: India (type locality: Madras); type skull in Brit. Mus., no. 475a-66.2.5.1; collected by Sir Walter Elliot].—Flower, 1885, List Cetacea Brit. Mus., p. 23 [type history].

Electra fusiformis, Gray, 1868, Synopsis whales and dolphins Brit. Mus., p. 7 [classification].

Electra obtusa Gray, 1868, Synopsis whales and dolphins Brit. Mus., p. 7, pl. 13 (skull) [new name for Lagenorhynchus electra Gray]; 1871, Suppl. Cat. seals and whales Brit. Mus., p. 76 [classification].

(?) Lagenorhynchus obscurum, Blanford (not Gray), 1891, Fauna British India, p. 580 [Indian: Ceylon (Palk Straits)].

Type: Skull only, British Museum (Natural History).

Type locality: Unknown.

DISTRIBUTION: Tropical seas north of 10° S.; recorded from coasts of India, Hawaii, Sénégal, Guinea, Madras, Indonesia, but unknown in South American waters.

# Lagenorhynchus [cruciger] obliquidens Gill

Lagenorhynchus obliquidens Gill, 1865, Proc. Acad. Nat. Sci. Philadelphia, 17: 177.—Dall, in Scammon, 1874, Marine mammals of the northwestern coast of North America, pl. 19, fig. 2 (animal), p. 290 [characters].—Tomilin, 1957, Mammals of eastern Europe and northern Asia, 9:604, fig. 112 (animal), fig. 113 (head), fig. 114 (skull) [characters; biology; economics; distribution; synonyms: longidens Cope, ognevi Slepzov].—Norris and Prescott, 1961, Univ. California Publ. Zool., 63: 292, 294, 296, 300, 326, fig. 3 (echelon formation swimming) [N. Pacific: Alaska to Baja California; seasonal movements; behavior; morphology; reproduction; locomotion].—Tomilin, 1962, Cetaceans of the U.S.S.R., Fauna U.S.S.R., 79: 174, fig. 57 (animal), fig. 58 (skull) [N. Pacific: U.S.S.R. (Kurile Islands; Japan Sea].—Scheffer and Rice, 1963, U.S. Fish Wildlife Serv. Spec. Sci. Rep., 431: 6 [regarded as possibly identical with thicolea Gray and conspecific with cruciger Quoy and Gaimard].

[Lagenorhynchus] obliquidens, Davis, 1963, Evolution, 17: 111 [may be conspecific with cruciger].

Delphinus longidens Cope, 1866, Proc. Acad. Nat. Sci. Philadelphia, 18: 295 [locality unknown; collected by U.S. Exploring Expedition (1838–1842); type a skull only in the U.S. National Museum, no. 3886].—Poole and Schantz, 1942, Bull. U.S. Nat. Mus., 178: 113 [type history; referred to Stenella].

Lagenorhynchus longidens, True, 1889, Bull. U.S. Nat. Mus., 36: 99 [type history; regarded as conspecific with L. obliquidens Gill].—Bierman and Slijper, 1947, Proc. K. Nederlandsche Akad. Wet., 50: 1361 [possibly identical with L. obliquidens Gill].

Lagenorhynchus ognevi Slensov, 1955, Trans. Inst. Oceanology, Acad. Sci. U.S.S.R., Moscow, 18: 60 [N. Pacific: U.S.S.R. (type locality: Nemoro Sea, 15–20 miles east of Kunashir Id., South Kuriles)].— Nishiwaki, 1957, Coll. Rep. Fish. Sci. Toyko Univ., p. 151 [N. Pacific: Japan].

Types: Three skulls, U.S. National Museum, nos. 1961, 1962, 1963; collected by W. A. Trowbridge; catalogued October 25, 1855.

Type locality: Near San Francisco, California.

DISTRIBUTION: North Pacific from Alaska and Aleutians to Baja California, Mexico, on the east and from the Kuriles to Japan on the west.

## Lagenorhynchus thicolea Gray

Lagenorhynchus Thicolea Gray, 1846, Zoology of the voyage of H.M.S. Erebus and Terror, 1(Mammalia): pl. 36 (skull) [no text]; 1849, Proc. Zool. Soc. London, 1849: 2 [type history; characters]; 1850, Cat. Mamm. Brit. Mus., Cetacea, p. 103 ["West coast of N. America"; characters]; 1866, Cat. seals and whales Brit. Mus., p. 271 [characters].

Lagenorhynchus thicolea, Flower, 1885, List Cetacea Brit. Mus., p. 28 [listed in the synonymy of *Prodelphinus obscurus* Gray; type, Brit. Mus., no. 934a–49.5.25.4].—True, 1889, Bull. U.S. Nat. Mus., 36: 88, 173, pl. 24, fig. 2 (skull) [characters; taxonomy].—Hamilton, 1952, Comun. Zool. Mus. Nac. Montevideo, 4(66): 5 [S. Atlantic: Falklands (Stanley)].

Electra thicolea, Gray, 1868, Synopsis whales and dolphins Brit. Mus., p. 7, pl. 36 (skull) [characters]; 1871, Suppl. Cat. seals and whales Brit. Mus., p. 77 [classification].

C[lymenia] (Electra) thicolea, Flower, 1884, Proc. Zool. Soc. London, 1883: 496 [characters; comparisons].

Type: Skull only, British Museum (Natural History), no. 934a-49.5.25.4; purchased from Dr. Dickie.

Type Locality: In the original description (Gray, 1849), given as "west coast of America," but subsequently (Gray, 1850, 1866, etc.) as "west coast of N. America."

DISTRIBUTION: Known only from the Falkland Islands (cf. Hamilton, 1952, Comun. Zool. Mus. Nac. Montevideo, 4(66): 5).

#### Genus CEPHALORHYNCHUS Gray

Cephalorhynchus Gray, 1846, Zoology of the voyage of H. M. S. Erebus and Terror, 1(Mammalia): 36 [subgenus of Delphinus Linneaus; included species: D. Heavisidii Gray, with synonyms: D. capensis Cuvier, D. dussumieri Fischer, D. cephalorhynchus F. Cuvier, D. hastatus Cuvier, "marsouin du Cap" F. Cuvier, Phocoena tridens A. Smith, P. homei A. Smith (=Lagenorhynchus cruciger Quoy and Gaimard), D. obscurus Gray (=Lagenorhynchus cruciger Quoy and Gaimard), D. compressicauda Lesson (= Tursiops truncatus Montagu); generic name attributed to Cuvier, 1836 (Hist. Nat. Cétacés, p. 156), where only the vernacular term "céphalorhynques" is used]; 1850, Cat. Mamm. Brit. Mus., Cetacea, p. 106 [taxonomy].—Flower, 1884, Proc. Zool. Soc. London, 1883: 473, 506 [taxonomy].—True, 1889 Bull. U.S. Nat. Mus., 36: 108 [taxonomy].—Harmer, 1922, Proc. Zool. Soc. London, 1922: 627 [taxonomy].—Winge, 1942, Interrelat. Mamm. Gen., 3: 304 [characters; classification].—Fraser and Purves, 1960, Bull. Brit. Mus. (Nat. Hist.), Zool., 7: 54, 99, 105, 108, fig. 26 [auditory system; classification].

Eutropia Gray, 1862, Proc. Zool. Soc. London, 1862: 145 [type species, Delphinus eutropia Gray, by monotypy].

Type species: The tautonymic *Delphinus cephalorhynchus* Cuvier, 1836, in the synonomy of *Delphinus Heavisidii* Gray, 1828 (see above).

DISTRIBUTION: Western Pacific: from the coasts of Sarawak and New Zealand (C. hectori) to Chile (C. eutropia); South Atlantic: from the coasts of Patagonia and the Falklands (C. commersoni) to the Cape seas off South Africa (C. heavisidei).

# Cephalorhynchus commersoni Lacépède

"Le jacobite" Commerson, description in unpublished manuscript addressed to Buffon.

Delphinus Commersonii Lacépède, 1804, Histoire naturelle des cétacées, p. 317.—Sonnini (Lacépède), 1804, Histoire naturelle des cétacées, pp. 42, 436 [Straits of Magellan; description].—Desmarest, 1822, Mammalogie, 2: 517 [characters].—Lesson and Garnot, 1826, Voyage autour du monde . . . La Coquille, Zool., 1: 181 [S. Atlantic: Falklands (Soledad Bay)].—Lacépède, 1837, Histoire naturelle des cétacées (Desmarest edition), pp. 11, 104 [Straits of Magellan; description].

Phocoena Commersonii, Lesson, 1827, Manuel Mamm., p. 414 [characters; classification].

C[ephalorhynchus] commersonii, Harmer, 1922, Proc. Zool. Soc. London, 1922: 627, 636, pl. 1 (animal), pl. 2, fig. 1 (animal), fig. 2 (skull), pl. 3, fig. 1 (skull), fig. 2b (mandibles) [S. Pacific and S. Atlantic: Tierra del Fuego; Straits of Magellan; Patagonian coast; Falkland Islands; characters; taxonomy; history; comparisons; synonyms:

Lagenorhynchus floweri Moreno, Lagenorhynchus cruciger? Bruce, 1915 (Scottish National Antarctic Expedition)].

Cephalorhynchus commersonii, Slijper, 1936, Die Cetaceen, vergleichendanatomisch systematisch (in text) [comparative anatomy, embryology, phylogeny, systematics].—Fraser, in Norman and Fraser, 1938, Giant fishes, whales and dolphins, p. 318, pl. 8b (animal), fig. 85 (animal) [characters].—Kellogg, 1940, Nat. Geogr. Mag., 77(1): 89, pl. 22 (animal) [characters; food; distribution].—Cabrera and Yepes, 1940, Mamíferos sudamericanos, p. 298, pl. 76 (animal) [characters; S. Atlantic: coast of Patagonia from 42° S. to Tierra del Fuego].—Olrog, 1950, Acta Zool. Lilloana, 9: 509 [S. Pacific: Chile (Straits of Magellan; Beagle Bay)].—Hamilton, 1952, Comun. Zool. Mus. Hist. Nat., Montevideo, 4(66): 5 [S. Atlantic: Falklands; characters; habits; local names: "porpoise," "puffing pig"].—Marelli, 1953, Anal. Mus. Nahuel Huapi, 3: 137, fig. (animal) [S. Atlantic: Tierra del Fuego; habits].

Cephalorhynchus commersoni, Yañez, 1948, Rev. Biol. Marina, Valparaiso, 1: 115 [S. Pacific: Chile; characters; local name: "tunina overa"].— Mann, 1957, Invest. Zool. Chilenas, 4: 103 [Chile; key characters].— Fraser and Purves, 1960, Bull. Brit. Mus. (Nat. Hist.), Zool., 7: 53, 97, 99, fig. 20 (pterygoid sinus), fig. 24 (auditory air sac system) [auditory system].

Lagenorhynchus Floweri Moreno, 1892, Rev. Mus. La Plata, 3: 385, pl. 8 (skull), pl. 9 (animal) [S. Atlantic: Argentina (type localities: Tierra del Fuego and coast of Santa Cruz); types, 2 skins and respective skulls in Museo de La Plata, collected by Sr. Tonini del Firia].—Lahille, 1899, Primera reunión del Congreso Latinoamericano, 3: 201 [S. Atlantic: Argentina (Isla Pavón, Santa Cruz; Isla de los Estados, Tierra del Fuego)].—Dabbene, 1902, Anal. Mus. Buenos Aires, (3), 1: 350 [S. Atlantic: Argentina (Tierra del Fuego)].—Lahille, 1905, Rev. Jardín Zool. Buenos Aires, p. 62 [S. Atlantic: Argentina (mouth of Río Santa Cruz); characters]; 1914, Enumeración y zoogeografía de los mamíferos de la República Argentina, p. 31 [S. Atlantic: Argentina (Patagonia)].

L[agenorhynchus] Burmeisteri, Moreno, 1892, Rev. Mus. La Plata, 3: 390 [name lapsus for L. floweri Moreno used in comparison with Lagenorhynchus fitzroyi Waterhouse].

Lag[enorhynchus] burmeisteri, Bierman and Slijper, 1947, Proc. Kongl. Nederlandsche Akad. Wet., 50: 1358 [treated as a synonym of L. fitzroyi Waterhouse (=Lagenorhynchus cruciger Quoy and Gaimard)].

Lagenorhynchus cruciger? Bruce (not d'Orbigny and Gervais), 1915, Scottish National Antarctic Expedition (1915), 4(20): 500, pl. 1 (animal) [S. Atlantic: Falkland Islands (Port Stanley); characters of the "piebald porpoise"].

Type: Name based on animals seen and described by Commerson in a manuscript addressed to M. Georges Louis Leclerc, Comte de Buffon.

Type locality: Straits of Magellan, Tierra del Fuego, Chile.

DISTRIBUTION: In the South Atlantic from the coast of Santa Cruz (or from Gulf of San Matías, Río Negro, according to Cabrera and Yepes, 1940, Mamíferos sudamericanos, p. 298) to Tierra del Fuego, east to the Falkland Islands and west into the South Pacific along the southern coast of Chile; also said to occur off Kerguelen Island in the southern Indian Ocean (Scheffer and Rice, 1963, U.S. Fish and Wildlife Service, Spec. Sci. Rep., 431: 5).

## Cephalorhynchus eutropia Gray

Delphinus Eutropia Gray, 1846, Zoology of the voyage of H. M. S. Erebus and Terror, 1(Mammalia): pl. 34 (skull) [figure without text]; 1849, Proc. Zool. Soc. London, 1849: 1 [characters]; 1850, Cat. Mamm. Brit. Mus., Cetacea, p. 111 [S. Pacific: Chile; characters]; 1862, Proc. Zool. Soc. London, 1862: 145 [type of genus Eutropia Gray].

Tursio Eutropia, Gray, 1866, Cat. seals and whales Brit. Mus., p. 262

[characters].

Tursio eutropia, Philippi, 1893, Anal. Mus. Nac. Chile, (1), Zool., (6): 14 [S. Pacific: Chile (Bahía de Corral, Valdivia)].

C[ephalorhynchus] eutropia, Flower, 1883, Proc. Zool. Soc. London, 1883: 477, 507 [taxonomy; Eutropia dickiei Gray a synonym].—Yañez, 1948, Rev. Biol. Marina, Valparaiso, 1: 115 [S. Pacific: Chile; characters; local name: "delfín negro"].

Cephalorhynchus (?) eutropia, Flower, 1885, List Cetacea Brit. Mus., p. 17

[S. Pacific: Chile; type history; Eutropia dickiei a synonym].

Cephalorhynchus eutropia, True, 1889, Bull. U.S. Nat. Mus., 36: 11, 112, 178, pl. 33, fig. 2 (skull) [S. Pacific: Chile; measurements].—Beddard, 1900, Book of whales, p. 179 [characters].—True, 1903, Proc. Biol. Soc. Washington, 16: 135, 143 [synonyms; albiventris Perez Canto, dickii [sic] Gray, platyrrhinus Philippi, panope Philippi].—Schneider, 1846, Bol. Soc. Biol. Concepción (Chile), 21: 80 [S. Pacific: Chile (Concepción)].—Mann, 1957, Invest. Zool. Chilenas, 4: [103 S. Pacific: Chile; key characters; local name: "tunina de vientre blanco"].—Cabrera, 1961, Rev. Mus. Argentino Cienc. Nat. "Bernardino Rivadavia," 4(2): 615 [synonyms: dickiei, albiventris, obtusata, panope, platyrhinus (sic)].

Eutropia Dickiei, Gray, 1866, Proc. Zool. Soc. London, 1866: 215 [new name for Delphinus eutropia Gray].

Eutropia dickii [sic], Perez Canto in Philippi, 1896, Anal. Mus. Nac. Chile, Zool., Entr., 12a: 11 [taxonomy].

Phocaena (Hyperoodon?) albiventris Perez Canto, in Philippi, 1893, Anal. Mus. Nac. Chile, (1), Zool., 6: 8, pl. 2, fig. 3 (animal) [S. Pacific: Chile (type locality: neighborhood of port of Valparaiso); type in Santiago museum].

- Tursio albiventris, Philippi, 1896, Anal. Mus. Nac. Chile Zool. Entr., 12a: 15, pls. 4-6 (skull) [S. Pacific: Chile (Río Valdivia, Chile); 5 skulls including 2 skeletons].
- [Cephalorhynchus]? albiventris, Trouessart, 1898, Cat. Mamm., p. 1041 [classification].
- Cephalorhynchus albiventris, Fraser, in Norman and Fraser, 1938, Giant fishes, whales and dolphins, p. 318 [characters].
- Phocaena obtusata Philippi, 1893, Anal. Mus. Nac. Chile, (1), Zool., 6: 12, pl. 3, fig. 1 (animal) [S. Pacific: Chile (type locality: Bahía de Talcahuano, Concepción); type a skin only in the Museo Nacional, Santiago de Chile].
- Cephalorhynchus (?) obtusata, True, 1903, Proc. Biol. Soc. Washington, 16: 139, 143 [classification].
- Tursio? panope Perez Canto, in Philippi, 1896, Anal. Mus. Nac. Chile Zool. Entr., 12a: 14, pls. 4, 5, 6 (skull) [S. Pacific: Chile (type locality not specified); type a skull only in Santiago Museum].
- *Cephalorhynchus panope*, Miller, 1928, Proc. Biol. Soc. Washington, 41: 171 [classification based on photograph of type skull].
- [Lissodelphis?] panope, Trouessart, 1904, Cat. Mamm., Suppl., p. 766 [classification].
- Tursio platyrrhinus Perez Canto, in Philippi, 1896, Anal. Mus. Nac. Chile, Zool., Entr., 12a: 16, pls. 4, 5, 6 (skull) [S. Pacific: Chile; type locality not specified; type a skull only in the Santiago museum].
- [Cephalorhynchus] platyrhinus [sic], Trouessart, 1904, Cat. Mamm., Suppl., p. 768 [classification].
- Type: Skull only, no. 936a-49.5.25.2 (figured in Gray, 1846, Zoology . . . Voyage . . . Erebus and Terror, 1: pl. 34), British Museum (Natural History); collected by Dr. Dickie, and purchased in 1849.
- Type locality: Pacific Ocean, off coast of Chile (cf. Gray, 1850, Cat. Mamm. Brit. Mus., Cetacea, p. 152).
  - DISTRIBUTION: South Pacific off the coast of Chile between 33° and 40° S.

# Cephalorhynchus hectori Van Bénéden

- Electra clancula, Hector (not Gray), 1873, Trans. New Zealand Inst. (1872), 5: 160, pl. 1 (skull), pl. 3 (animal) [S. Pacific: New Zealand; characters].—Hutton, 1877, Trans. New Zealand Inst., 9: 350 [S. Pacific: New Zealand; characters].
- Electra hectori, Van Bénéden, 1881, Bull. Roy. Acad. Belge, (3), 4: 877, 882, pl. 2 (animal, lateral and ventral aspects).
- Cephalorhynchus hectori, Hector, 1885, Trans. New Zealand Inst., 17: 209 [characters; history; Electra clancula Hector (not Gray), 1873, a synonym].—Oliver, 1922, Proc. Zool. Soc. London, 1922: 580, pl. 2, figs. 1, 2 (animal) [S. Pacific: New Zealand (north coast; Bay of Islands;

Wanganui coast; Cook Strait; Canterbury, Banks Peninsula); "never seen far from the coast"].

[Cephalorhynchus hectori], Harrison, 1960, Malayan Nat. Journ., 14: 89 [N. Pacific: Sarawak].

Cephalorhynchus albifrons True, 1889, Bull. U.S. Nat. Mus., 36: 111, 177, pl. 32, fig. 1 (animal), fig. 2 (skull) [S. Pacific: New Zealand (type locality); name based on the description and figures of *Electra clancula* Hector (not Gray), 1873].

Cephalorhynchus hectori bicolor Oliver, 1946, Dominion Mus. Records, Zool., 1,(1): 4 figs. 1-3 (animals at sea) [S. Pacific: New Zealand (type locality: Pelorous Sound and Wairou Bay, Cook Strait); type description based on photographs of dolphins observed at sea].

Type: Skin and skeleton, Muséum Royal d'Histoire Naturelle, Brussels. Type Locality: North Coast, New Zealand, South Pacific.

DISTRIBUTION: Western Pacific from Sarawak in the South China Sea to New Zealand.

# Cephalorhynchus heavisidei Gray

Delphinus (Grampus) Heavisidii Gray, 1828, Spicilegia Zoologica, 1: 2.

Delphinus heavisidii Flower, 1884, Proc. Zool. Soc. London, 1883: 474, 506 [classification; characters; synonyms: D. capensis Cuvier, D. cephalorhynchus Cuvier, D. hastatus Cuvier, Orca capensis Van Bénéden].

Grampus headivisii [sic], Lesson, 1836, Complément des oeuvres de Buffon, 10: 328 [typographical error for heavisidii Gray].

Cephalorhynchus heavisidei, True, 1889, Bull. U.S. Nat. Mus., 36: 108, 176, pl. 31, fig. 1 (animal), fig. 2 (skull) [taxonomy].—Fraser and Purves, 1960, Bull. Brit. Mus. (Nat. Hist.), Zool., 7:53, 97, 99, fig. 20 (pterygoid sinus), pl. 36 (skull) [auditory system].

D[elphinus] capensis G. Cuvier, 1829, Règne animal, p. 289 [S. Atlantic: South Africa (type locality: Cape of Good Hope); type in Paris Museum; name preoccupied by Delphinus capensis Gray, 1828 (=Delphinus delphis Linnaeus)].

Delphinus capensis, F. Cuvier (not Gray), in E. Geoffroy and Cuvier, 1829, Hist. Nat. Mamm., livr. 58 and pl. [S. Atlantic: South Africa (Cape of Good Hope); characters].

Phocæna Capensis, Hamilton, 1837, Jardine's Naturalist's Library, Mammalia, 6(whales): 227 [characters].

Orca [sic] capensis, Van Bénéden (not Gray), 1873, Bull. Acad. Roy. Sci. Lettres Beaux Arts Belgique, Bruxelles, (2), 36: 37 [S. Atlantic: South Africa (type locality: Cape Town); name based on Castelnau's drawing captioned Delphinus heavisidii; D. hastatus F. Cuvier a synonym].

D[elphinus] Dussumieri Fischer, 1829, Syn. Mamm., Addenda, p. 656 [new

name for *D. capensis* Cuvier, preoccupied by *Delphinus capensis* Gray, 1828].

D[elphinus] cephalorhynchus F. Cuvier, 1836, Hist. Nat. Cétacés, p. 158 [S. Atlantic: South Africa (type locality: Cape of Good Hope)].

D[elphinus] hastatus F. Cuvier, 1836, Hist. Nat. Cétacés, p. 161 [S. Atlantic: South Africa (type locality: Cape of Good Hope)].

Delphinus tridens Van Bénéden, 1873, Bull. Acad. Roy. Sci. Lettres Beaux Arts, Belgique, Bruxelles, (2), 36: 33 [S. Atlantic: South Africa (Cape Town); Castelnaus ms. name for dolphin in drawing captioned Delphinus heavisidii renamed Orca capensis by Van Bénéden p. 37)].

Type: Mounted skin and skull, originally in the museum of the Royal College of Surgeons, now in the British Museum (Natural History); collected by Captain Heaviside.

Type Locality: Cape of Good Hope, South Africa.

DISTRIBUTION: South Atlantic and Indian Oceans off South Africa.

## Genus ORCAELLA Gray

Orcaella Gray, 1866, Cat. seals and whales Brit. Mus., p. 285.—Fraser and Purves, 1960, Bull. Brit. Mus. (Nat. Hist.), Zool., 7: 51 et seq., fig. 26 (table) [auditory system; classification].

Orcella Anderson, 1871, Proc. Zool. Soc. London, 1871: 142, ftn. [new name for Orcaella Gray].—Winge, 1942, Interrelat. Mamm. Gen., 3: 252 [characters; classification].

Type species: Orcaella brevirostris Owen, by monotypy.

DISTRIBUTION: Coastal waters, estuaries, and rivers of the Indian Ocean and South China Sea from North Borneo to Bay of Bengal and up the Mekong, Ganges, and the Irrawaddy Rivers.

# Orcaella brevirostris Gray

Orca [(Orcaella)] brevirostris Gray, 1866, Cat. seals and whales Brit. Mus., p. 285.

Phocæna (Orca) brevirostris, Owen, 1866, Trans. Zool. Soc. London, 6: 24, pl. 9 (skull).

Orcella brevirostris, Anderson, 1871, Proc. Zool. Soc. London, 1871: 142, fig. 1 (animal) [Indian: India (Bay of Bengal; Ganges River, 70–80 miles upstream); characters].—Blanford, 1891, Fauna of British India, p. 578, fig. 189 (animal) [Indian: India (Bay of Bengal "ascending rivers as far as the tide extends"; Singapore; North Borneo].—Thomas, 1891, Ann. Mus. Civico Genoa (2), 10: 947 [Burma (Irawaddy River near Bhamò); Malaysia (Singapore, Brunei River); fluminalis indistinguishable from brevirostris].—Gibson-Hill, 1950, Sarawak Mus.

Journ., 5: 293 [N. Pacific: Sarawak].—Fraser and Purves, 1960, Bull. Brit. Mus. (Nat. Hist.), Zool., 7: 51 et seq., pl. 32 (skull) [auditory system].

Orcaella brevirostris, Van Bénéden and Gervais, 1880, Ostéographie des cétacés, p. 550, text fig. (animal), pl. 64 (skull) [Cambodia (Mekong River, 260 miles above mouth); fluminalis probably conspecific].

"Dolphin of the Irawady," Anderson, 1870, Proc. Zool. Soc. London, 1870; 220; 1871, Proc. Zool. Soc. London, 1870; 544.

Orcaella brevirostris brevirostris, Ellerman and Morrison Scott, 1951, Palaearctic mammals, p. 738 [classification].

Orcaella fluminalis Gray, 1871, Suppl. Cat. seals and whales Brit. Mus., p. 80 [Burma (type locality: Irrawaddy River); type an articulated skeleton, British Museum, no. 1454b-77.12.10.17; purchased 1877 from J. Anderson (cf. Flower, 1885, List Cetacea Brit. Mus., p. 17)].

Orcella fluminalis, Anderson, 1871, Proc. Zool. Soc. London, 1871 (June): 143, fig. 2 (animal) [Burma (Irrawaddy River from sea to 300–900 miles upstream)].

Orcaella brevirostris fluminalis, Ellerman and Morrison-Scott, 1951, Checklist of Palaearctic and Indian mammals, p. 738 [classification].

Type: Skull, British Museum, no. 1454a; collected by Sir Walter Elliot. Type Locality: Harbor of Vizagapatam, Madras, Bay of Bengal, India. Distribution: The same as for the genus.

#### Genus PSEUDORCA Reinhardt

Pseudorca Reinhardt, 1862, Overs. Danske Vidensk. Selsk. Forh., p. 151.—Flower, 1884, Proc. Zool. Soc. London, 1883: 507 [characters].—Kellogg, 1928, Quart. Rev. Biol., 3: 33 et seq. [history; relationships].—Winge, 1942, Interrelat. Mamm. Gen., 3: 308 [characters; classification].

Neoorca Gray, 1871, Suppl. Cat. seals and whales Brit. Mus., p. 81 [subgenus of Pseudorca Reinhardt; type species: Pseudorca meridionalis Gray (= Orca meridionalis Flower), by monotypy].

Type species: Pseudorca crassidens Owen, by original designation.

DISTRIBUTION: Eastern Atlantic: from North and Baltic Seas to Mediterranean and Cape of Good Hope; western Atlantic: from North Carolina to Caribbean Sea and Buenos Aires, Argentina; eastern Pacific: from Washington to Guerrero, Mexico, and Paita, Peru; western Pacific: from Japan to Australia, Tasmania, and New Zealand; Indian Ocean (Ceylon; southern India). Tomilin (1957, Mammals of eastern Europe and northern Asia, 9: 641) includes Davis Strait, North Atlantic, in the range, citing as authority Miller (1921, Proc. U.S. Nat. Mus., 57: pls. 27–31). The latter, however, pointed out that this record is an error originating in a misinter-

pretation by True (1889, Bull. U.S. Nat. Mus., 36: 144) of an ambiguous catalog entry. Later, Tomilin (1962, Cetacea of the U.S.S.R., Fauna U.S.S.R., 79: 188) adds Brazil, in the Atlantic, the Aleutian and Kurile Chains and Galápagos, in the Pacific, to the distribution. I have not found the source of these records.

#### Pseudorca crassidens Owen

Phocaena crassidens Owen, 1846, A history of British fossil mammals and birds, p. 516, fig. 213 (skull).

Orca crassidens, Gray, 1846, Zoology of the voyage of H. M. S. Terror and Erebus, 1(Mammalia): 34 [characters; type in Museum of Stanford, later believed to be in the College of Surgeons, London].

Pseudorca crassidens, Reinhardt, 1862, Overs. Danske Vidensk. Selsk. Forh., pp. 103-152, figs. 1, 2 (skull), fig. 3 (forelimb bones), fig. 4 (animal) [characters].—True, 1889, Bull. U.S. Nat. Mus., 36: 143. 186, pl. 44, fig. 1 (animal), fig. 2 (skull) [taxonomic history; characters; synonyms: Orca meridionalis Flower, Orca destructor Cope, Globicephalus Grayi Burmeister].—Beddard, 1900, Book of whales, p. 290 [characters].—Elliot, 1904, Field Columbian Mus., Zool. Ser., 4(1): 51, pl. 22 (skull) [characters; distribution].—Lahille, 1905, Rev. Jardín Zool. Buenos Aires, 1905: 65 [characters].-Miller, 1920, Proc. U.S. Nat. Mus., 57: 205, pls. 27-31 (skull) [N. Atlantic: Venezuela (Isla de los Aves, 70 miles off coast); U.S.A. (Florida); N. Pacific: Mexico (Pishilinque Bay, Baja California); S. Pacific: Peru (Paita)].—Oliver, 1922, Proc. Zool. Soc. London, 1922: 577 [distribution].—Brimley. 1937, Journ. Mammal., 18: 71, pl. 72 (animal, skull) [N. Atlantic: U.S.A. (Hatteras Inlet, North Carolina; Biscayne Bay, Florida; Hellsboro Lighthouse, Florida); North Sea; N. Pacific: Mexico (La Paz, Baja California; Acapulco, Guerrero); Peru; S. Pacific: Chatham Islands; New Zealand].—Fraser, in Norman and Fraser, 1938, Giant fishes, whales and dolphins, p. 294, fig. 75 (animal) [characters; habits].—Kellogg, 1940, Nat. Geogr. Mag., 77 (1): 89, pl. 21 (animal), fig. p. 84 (stranded animals) [characters; habits].—Cabrera and Yepes, 1940, Mamíferos sudamericanos, p. 301 [characters; habits; distribution].-G. M. Allen, 1942, Extinct and vanishing mammals of the western hemisphere, p. 480 [history; habits; conservation].—Marelli, 1953, Anal. Mus. Nahuel Huapi, 3: 134, figs. [S. Atlantic: Argentina (Mar del Plata, Buenos Aires)].—Bullis and Moore, 1956, American Mus. Novit., no. 1756 [American records].—Mann, 1957, Invest. Zool. Chilenas, 4: 103 [S. Pacific: Chile; key characters].—Fraser and Purves, 1960, Bull. Brit. Mus. (Nat. Hist.), Zool., 7: 35 et seq., pl. 30 (skull) [auditory system].—Silas and Pillay, 1960, Journ. Marine Biol. Assoc. India, 2(2): 268, pl. 1 (animal) [Indian: India (Cape Comorin; Trivandrum); characters].—Norris and Prescott, 1961, Univ. California Publ. Zool., 63: 334 [N. Pacific: Washington to Baja California; morphology; behavior].—Paulus, 1964, Bull. Mus. Hist. Nat., Marseille, 23: 29, figs. pp. 65–67 (skeletal parts) [N. Atlantic: Mediterranean (all stranding records); Germany; France; Portugal; Scotland; England; S. Atlantic: South Africa (Capetown; St. Helena Bay); Indian: Zanzibar; Ceylon; S. Pacific: Ecuador (Galápagos)].

P[seudorca] crassidens, Schneider, 1946, Soc. Biol. Concepción (Chile),

21: 80 [S. Pacific: Chile].

Orca meridionalis Flower, 1865, Proc. Zool. Soc. London, 1864: 420, figs.
1, 2 (skull) [S. Pacific: Australia (type locality: Tasmania); types, two skulls in Royal College of Surgeons].

Pseudorca meridionalis, Gray, 1866, Cat. seals and whales Brit. Mus., p. 291,

figs. 58, 59 (skulls) [characters].

Pseudorca crassidens meridionalis, Deraniyagala, 1945, Spolia Zeylanica, 24(2): 116, pl. 15 (animal) [Indian: Ceylon]; Deraniyagala, 1960,

Spolia Zeylanica, 29: 83 [Indian: Ceylon].

Orca destructor Cope, 1866, Proc. Acad. Nat. Sci. Philadelphia, 18: 293 [S. Pacific: Peru (type locality: off Paita, Piura, 5° S.); type in U.S. National Museum].—True, 1889, Bull. U.S. Nat. Mus., 36: 144 [type a beak and mandible, no. 3697; regarded as a synonym of Pseudorca crassidens].—Poole and Schantz, 1942, Bull. U.S. Nat. Mus., 178: 112

[type history].

Globicephalus Grayi Burmeister, 1867, Anal. Mus. Publ. Buenos Aires, 1: 308 [S. Atlantic: Argentina (type locality not specified); type, skull only in Museo Nacional, Buenos Aires, received from Dr. Furst]; 1868, Ann. Mag. Nat. Hist., (4), 1: 52, pl. 2, figs. 2, 3 (skull) [S. Atlantic: Argentina (type locality: Buenos Aires); type a skull only].—Gervais, 1872, Journ. Zool. Paris, 1: 68 [synonym of Pseudorca crassidens Owen].—True, 1889, Bull. U.S. Nat. Mus., 36: 145 [characters; synonym of Pseudorca crassidens].

Globicephalus Grayi, Burmeister, 1869, Anal. Mus. Publ. Buenos Aires, 1(6): 367, pl. 21 (skull; sketch of animal reconstructed) [S. Atlantic:

Argentina (Golfo de Somborombón, Buenos Aires)].

Pseudorca Grayi, Burmeister, 1872, Ann. Mag. Nat. Hist., (4), 10: 53 [characters; comparisons].—Reinhardt, 1873, Vidensk. Meddel. Naturh. For. Copenhagen, 1872, 6–9: 1 [characters].

Pseudorca? mediterranea Giglioli, 1882, Zool. Anzeiger, 5: 268–289 [N. Atlantic (type locality: Mediterranean Sea); one cotype skull in Florence Museum, another in Zoological Museum of Palermo University].

"curiously tailed dolphin," Nishiwaki and Yang, 1961, Norsk Hvalf.-Tid. 50(12): 507, figs. 1-3 (animal), figs. 4-5 (flukes) [N. Pacific: Formosa; false killer with anomalous fluke region].

Type: Subfossil skull, originally in the Museum of Stanford, later believed to be in the College of Surgeons (Gray, 1846, Zoology . . . Erebus and Terror, 1: 34), then in the Cambridge University Museum (Gray, 1866, Cat. seals and whales Brit. Mus., p. 298), finally said to be lost (Flower, 1884, Cat. Osteol. Spec. Roy. Coll. Surgeons London, 2(Mammalia): 573).

Type locality: Lincolnshire Fens, near Stanford, England.

DISTRIBUTION: The same as for the genus; in South American waters, the Caribbean off the coast of Venezuela (Isla Aves, 12° N., 67°30′ W.), the South Pacific (Paita, Peru, 5° S.), and the South Atlantic (off Buenos Aires, Argentina, 36° S.).

### Genus ORCINUS Fitzinger

- [?] Megalodontia Brookes, 1828, Cat. Joshua Brookes Mus., p. 40 [work not seen; cf. Gray, 1866, Cat. seals and whales Brit. Mus., p. 279, where generic name only is cited].
- Orca Gray, 1846, Zoology of the voyage of H. M. S. Erebus and Terror, 1(Mammalia): 33 [included species: O. gladiator Gray (=Delphinus gladiator Bonnaterre=Delphinus orca Linnaeus; hence, type by virtual tautonomy), O. crassidens Owen (=Pseudorca crassidens Owen), O. capensis Gray (=D. orca Linnaeus), O. intermedia (=Feresa intermedia Gray); generic name preoccupied by Orca Wagler, 1830 (=Hyperoodon Lacépède)].—Flower, 1884, Proc. Zool. Soc. London, 1883: 507 [characters].—Winge, 1942, Interrelat. Mamm. Gen., 3: 252 [characters; classification].
- Orcinus Fitzinger, 1860, Wissentchaftlich-populäre Naturgeschichte der Säugethiere, 6: 204.—Palmer, 1899, Proc. Biol. Soc. Washington, 13: 23–24 [available name for Orca Gray, 1846, preoccupied].— Kellogg, 1928, Quart. Rev. Biol., 3: 33 et seq. [history; relationship].— Fraser and Purves, 1960, Bull. Brit. Mus. (Nat. Hist.), Zool., 7: 51 et seq., fig. 26 (table) [auditory system; classification].
- Ophysia Gray, 1868, Synopsis whales and dolphins, p. 8 [type species: Orca capensis Gray (=Delphinus orca Linnaeus), by monotypy]; 1870, Proc. Zool. Soc. London, 1870: 76 [included species: Orca pacifica Gray (=Delphinus orca Linnaeus)].
- Gladiator Gray, 1870, Proc. Zool. Soc. London, 1870: 71 [type species by monotypy: Orca stenorhyncha (= Orca gladiator Gray=Delphinus orca Linnaeus); name preoccupied by Gladiator Gistl, a genus of Coleoptera].
- Grampus Iredale and Troughton (not Gray), 1933, Rec. Australian Mus., 19(1): 28–36 [type species: "Delphinus grampus 'Linn.'=Hunter" (=Delphinus grampus Blainville=Delphinus orca Linnaeus), by monotypy].

Type species: Orcinus orca (=Delphinus orca Linnaeus), by monotypy. Distribution: All seas from Arctic to Antarctic.

#### Orcinus orca Linnaeus

[Delphinus] orca Linnaeus, 1758, Syst. Nat., ed. 10, 1: 77.—Thomas, 1911, Proc. Zool. Soc. London, 1911: 158 [type history].

Delphinus Orca, Lacépède, 1804, Histoire naturelle des cétacées, pp. xlii, 298, pl. 15, fig. 1 (animal), pl. 16 (skull) [N. Atlantic: polar region; Davis Strait; England (mouth of Thames River); Pacific: Antarctic Ocean; Gulf of Panama; characters; life history].

Orcinus orca, Palmer, 1899, Proc. Biol. Soc. Washington, 13: 23-24 [type of Orcinus Fitzinger].-Elliot, 1904, Field Columbian Mus., Zool. Ser., 4(1): 50, fig. xviii (animal), pl. 22 (skull) [characters; distribution; synonymy].—Trouessart, 1904, Suppl. Cat. Mamm., p. 771 [classification].-Lahille, 1905, Rev. Jardín Zool. Buenos Aires, 1905: 64 [characters].—Lillie, 1915, British Antarctic (Terra Nova) Expedition, 1910, Zool., 1(3): 119 [Antarctica: Ross Sea; 34° S.-78° 38' S.; sexual dimorphism; variation in shape of dorsal fin].—Oliver, 1922, Proc. Zool. Soc. London, 1922: 577 [characters].—Weber, 1923, Die Cetaceen der Siboga-Expedition, Siboga Expeditie, 58: 20 [S. Pacific: Indonesia].—Fraser, in Norman and Fraser, 1938, Giant fishes, whales and dolphins, p. 289, fig. 74 (animal) [characters; habits].—Cabrera and Yepes, 1940, Mamíferos sudamericanos, p. 299, pl. 73 (animal) [characters; habits].—Olrog, 1950, Acta Zool. Lilloana, 9: 509 [S. Atlantic: Chile (Cape Horn; Grevy Island)].—Hamilton, 1952, Comun. Zool. Mus. Hist. Nat. Montevideo, 4(66): 4 [S. Atlantic: Falklands].—Sapin-Jaloustre, 1953, Mammalia, 17: 251, fig. 20 (animal) [sighting characters].—Taylor, 1957, Proc. Zool. Soc. London, 129: 325, pls. 1, 6, 7 (animals) [Antarctica: Graham Land; observed in a small sea-ice pool].—Mann, 1957, Invest. Zool. Chilenas, 4: 107 [S. Pacific: Chile; key characters].—Fraser and Purves, 1960, Bull. Brit. Mus. (Nat. Hist.), Zool., 7: 50 et seq., pl. 31 (skull) [auditory system].—Backus, 1961, Journ. Mammal., 42: 418, pl. (skull) [N. Atlantic: Bahamas (Great Abaco Island); stranding records].—Norris and Prescott, 1961, Univ. California Publ. Zool., 63: 301, 330 [N. Pacific: Bering Sea to Baja California; behavior; morphology; locomotion; feeding.—Lévèque, 1963, Mammalia, 27(4): 609 [S. Pacific: Ecuador (Galápagos)].

O[rcinus] orca, Schneider, 1946, Bol. Soc. Biol. Concepción, 21: 80 [S. Pacific: Chile (Concepción)].—Yañez, 1948, Rev. Biol. Marina, Valparaiso, 1: 115 [S. Pacific: Chile].

[Grampus] orca, Iredale and Troughton, 1933, Rec. Australian Mus., 19(1): 30 ["identification" of the nomen nudum Delphinus Grampus "Linn.", Gray, 1828].

Grampus orca, Kellogg, 1940, Nat. Geogr. Mag., 77(1): 70, pl. 13 (animal) [characters; habits; distribution].—Miller and Kellogg, 1955, Bull. U.S. Nat. Mus., 205: 661 [listed; distribution in North American

waters].—Hall and Kelson, 1959, Mammals of North America, p. 824 [characters; distribution in North American waters].

Delphinus serra Borowski, 1780, Gemeinnüzzige Naturgeschichte des Thierreichs, 2: 38 [N. Atlantic (type locality: Spitzbergen, Davis Strait, etc.); "épée de mer" of Brisson, 1756, Reg. Anim., p. 372].

D[elphinus] Gladiator Bonnaterre, 1789, Tabl. Encycl. Méth., Cétologie, p. 23 [N. Atlantic (type locality: Spitzbergen, Davis Strait, and New England coast); type, none preserved, name based on travelers' accounts but primarily Anderson, 1746, Nachricten von Island, Grönland und der Strasse Davis, vol. 2].

Orca gladiator, Gervais and Van Bénéden, 1869–1880, Ostéographie des Cétacés, p. 538, pl. 46 (skeleton) [osteology].—True, 1889, Bull. U.S. Nat. Mus., 36: 187, pl. 45, fig. 1 (animal), fig. 2 (skull) [characters].—Beddard, 1900, Book of whales, pp. 286, 289 [characters; habits].—Racovitza, 1903, Expedition Antarctique Belgique, Cetacea, pp. 44, 59 [Antarctica: 70°23′ S., 85°57′ W.].—Wilson, 1907, Nat. Antarctic Exped., 1901–1904, Zool., 2: 4, 6, text fig. 6 (variation in shape of dorsal fin), pl. 4 (animal with dorsal fin showing) [Antarctica; northern and southern forms conspecific; dorsal fin variable in size and shape; "an undescribed whale" (here regarded as a killer whale; cf. Lillie, 1915, British Antarctic (Terra Nova) Expedition, 1910, Zool., 1(3): 120, the "high-finned whale")].—Bruce, 1915, Scottish National Antarctic Expedition, Zool., 4(20): 487 [Antarctica: 63°–74° S.].

D[elphinus] Orca ensidorsatus Kerr, 1792, Animal Kingdom, p. 364 [type, the "sword grampus" of the Atlantic, Antarctic, and European seas]. Delphinus Duhameli Lacépède, 1804, Nat. Hist. Cétacés, pp. xliii, 314, pl. 9, fig. 1 (animal) [name based on Duhamel's figure and description of a killer whale taken at the mouth of the Loire, France].

Delphinus grampus Blainville, in Desmarest, 1817, Nouv. Dict. Hist. Nat., 9: 168 [name based on the North Atlantic killer whale of authors but primarily on a "grampus" of Hunter].

Orca Capensis Gray, 1846, Zoology of the voyage of H. M. S. Erebus and Terror, 1(Mammalia): 34, pl. 9 (skull) [S. Atlantic: South Africa (type locality: Cape of Good Hope)]; 1850, Cat. Mamm. Brit. Mus., Cetacea, p. 95 [44° N. to 10° S.; characters; synonymy]; 1866, Cat. seals and whales Brit. Mus., p. 283 [S. Pacific: Chile; N. Pacific; S. Atlantic: South Africa; Indian]; 1871, Suppl. Cat. seals and whales Brit. Mus., p. 90, figs. 8, 10 (skull) [characters].

[Orcinus orca] Capensis, Trouessart, 1904, Cat. Mamm., Suppl., p. 771 [classification].

Delphinus victorini Grill, 1858, Kongl. Svenska Vet.-Akad. Handl. Stockholm, (2), 2: 21, pl. 1 (animal) [S. Atlantic: South Africa (type locality: Knysua River, west of Cape Town); type a stranded individual represented by drawing and field notes by J. F. Victorin.]

Orca Eschrichtii Reinhardt, 1866, Recent memoirs on the cetacea, Ray Soc. London, p. 188, fig. p. 187 [N. Atlantic: Great Britain (type locality: Kollefjord of Strömö, Faeroe Islands); name based on Eschricht's description of the third northern species of Orca (Reinhardt, op. cit., p. 184) and attributed to Prof. Steenstrup; several skeletons in the Copenhagen (?) Museum].

[Orcinus orca] eschrichti [sic], Trouessart, 1904, Cat. Mamm., Suppl., p.

771 [classification].

O[rca] Schlegelii Lilljeborg, 1866, Synopsis of the cetaceous mammalia of Scandinavia (Sweden and Norway), Ray Society, London, p. 237 [N. Atlantic: Norway (type locality: west coast); types, 2 skeletons in the Bergen Museum (by restriction; name actually based on additional material examined and described in literature)].

Orca magellanica Burmeister, 1866, Ann. Mag. Nat. Hist., (3), 18: 99 (name), 101 (description), pl. 9, fig. 5 (skull) [S. Atlantic: Argentina (type locality: Arroyo de Cristiano Muerto, south of Cabo Corrientes, Buenos Aires, 38°50′ S.); type a skull only in Buenos Aires museum]; 1867, Anal. Mus. Publ. Buenos Aires, 1: 307 [S. Atlantic: Argentina (Partido de La Lobería, Buenos Aires], 1869, Anal. Mus. Publ. Buenos Aires, 1(6): 373, pl. 22 (skull) [S. Atlantic: Argentina (Cabo Corrientes to Straits of Magellan)].—Dabbene, 1902, Anal. Mus. Buenos Aires, (3), 1: 350 [S. Atlantic: Argentina (Tierra del Fuego)].

[Orcinus orca] magellanicus, Trouessart, 1904, Cat. Mamm., Suppl., p. 771

[classification].

Orca orca magellanicus, Lahille, 1914, Enumeración y zoogeografía de los mamíferos de la república de Argentina, p. 31 [S. Atlantic: Argentina (Patagonia)].

Orca ater Cope, in Scammon, 1869, Proc. Acad. Nat. Sci. Philadelphia, 21: 22 [N. Pacific (type locality: "North West coasts from Oregon to the Aleutian Islands"; name based on Scammon ms. description (cf. Scammon, 1869, op. cit., p. 57, fig. 17, showing animal seen at Juan de Fuca Straits; 1874, Marine mammals of the northwestern coast of North America, pp. 88, 297, pl. 17, fig. 2 (animals)].

Orca atra [sic], Gray, 1871, Suppl. cat. seals and whales Brit. Mus.,

p. 92 [misprint for Orca ater Cope].

Orca rectipinna Cope in Scammon, 1869, Proc. Acad. Nat. Sci. Philadelphia, 21: 22, figs. 15, 16 (outline sketches of animal) [N. Pacific: U.S.A. (type locality: coast of California); name based on animal described and figured by Scammon (1869, op. cit., p. 55; 1874, Marine mammals of the north western coast of North America, p. 88, pl. 17, fig. 1)].

Grampus rectipinna, Scheffer, 1942, Murrelet, 24: 44 [regarded as valid].—Hall and Kelson, 1959, Mammals of North America, p. 825 and fig. (animal), fig. 453 (skull) [characters; synonymy].

- [Orca] rectispina [sic], Trouessart, 1898, Cat. Mamm., p. 1050 [misspelling of rectipinna Cope].
- Orca stenorhyncha Gray, 1870, Proc. Zool. Soc. London, 1870: 71, figs. 1, 3 (skull) [N. Atlantic: England (type locality: North Sea); types, "skeleton from Weymouth and a skull from the English coast"; in British Museum, 2 skulls, nos. 361b-46.8.7.3 and 361c (cf. Flower, 1885, List Cetacea Brit. Mus., p. 18)].
- Orca latirostris Gray, 1870, Proc. Zool. Soc. London, 1870: 76 [N. Atlantic: England (type locality: North Sea, coast of Essex); type skull, British Museum, no. 361a)].
- Ophysia pacifica Gray, 1870, Proc. Zool. Soc. London, 1870: 71, 76 [N. Pacific: type locality not specified but said to agree with a "skull of the same species . . . from Chile"; type from Zoological Society of London, collected by Capt. Delville, R.N., and now in British Museum; synonyms: Delphinus globiceps Grant (1833, Proc. Zool. Soc. London, 1833: 65), "Delphinus orca Eydoux, Mus. Paris," Orca capensis Gray (1846, Zoology . . . Erebus and Terror, 1: 34, pl. 9)]; 1871, Suppl. Cat. seals and whales, p. 93 [N. Pacific; characters].—Flower, 1885, List cetacea Brit. Mus., p. 18 [in synonymy of Orca gladiator; type history].
- O[rca] pacifica, Gray, 1870, Ann. Mag. Nat. Hist., (4), 6: 394 [S. Pacific: Chile].
- [Orca gladiator] australis Gervais, 1869–1871, Ostéographie des cétacés, Atlas, pl. 47, fig. 2 (skull); text p. 540 [Indian: South Africa (type locality: Algoa Bay); africana Gray a synonym].
- Orca gladiator var. arcticus Gervais, 1869–1871, Ostéographie des cétacés, Atlas, pl. 47, fig. 3 (skull) [N. Atlantic: Great Britain (type locality: Faeroe Islands); type skull in Copenhagen Museum].
- Orca gladiator europæus Gervais, 1869–1871, Ostéographie des cétacés, Atlas, pl. 47, figs. 4, 5 (skulls) [N. Atlantic: type locality not specified; type skull in Paris Museum].
- Orca africana Gray, 1871, Suppl. Cat. seals and whales Brit. Mus., p. 91 [Indian: South Africa (type locality: Algoa Bay, Cape of Good Hope); evidently a new name for Orca gladiator var. australis Gervais].
- Orca tasmanica Gray, 1871, Suppl. Cat. seals and whales Brit. Mus., p. 92 [Indian: Australia (type locality: Tasmania); name based on "Orca gladiator var. australis, Gervais, Ostéogr. Cet. t. 47, fig. 1" (skull)].—Gervais and Van Bénéden, 1880, Ostéographie des Cétacés, p. 543.
- Orca gladiator tasmaniensis [sic], Cabrera, 1961, Rev. Mus. Argentino Cienc. Nat. "Bernardino Rivadavia," 4; 616 [miscitation of name in synonymy of Grampus orca].
- Orca minor Malm, 1871, Kongl. Svenska Vetenskaps Akad. Handl., 9: 81 [N. Atlantic: Sweden (type locality: Varberg, here restricted); type skeleton in Göteborg Museum].

Orca ater var. fusca Dall, in Scammon, 1874, Marine mammals of the northwestern coast of North America, p. 298, pl. 17, fig. 3 (animal) [N. Pacific: U.S.A. (type locality: coast of California or Oregon); name based on Scammon's account].

Orca antarctica Fischer, 1876, Journ. Zool., 5: 146 [S. Atlantic; name based on M. Dumoutier's drawing and ms. of a killer whale seen at sea between Powell and South Shetland Islands during the "Voyage au Pôle Sud" in the Astrolabe and Zélée, commanded by Captain Dumont d'Urville].

Physeter microps, Fabricius (not Linnaeus), 1780, Fauna Groenlandica, p. 44 [N. Atlantic (type locality: Greenland seas)].

Type: None in existence, name based on a description of the common killer whale of authors.

Type locality: "Oceano Europaeo."

DISTRIBUTION: All seas from Arctic to Antarctic and the coasts of Antarctica; in South America from Cabo Corrientes, Buenos Aires (38°50′ S.), Argentina, to Cape Horn, northward on the Pacific side to Concepción, Chile (37° S.); in the northwest Atlantic as far south as Florida (Moore, 1953, Midland Nat., 49: 138) and the Bahamas (Backus, 1961, Journ. Mammal., 42: 418)].

Remarks: The name "Grampus" rectipinna Cope was revived for the Northern Pacific killer whale by Scheffer (1942, Murrelet, 23: 44) on the basis of a statement communicated to him by Dr. Remington Kellogg that "all reported observations seem to indicate that the Pacific coast form may have a higher dorsal fin than the Atlantic coast form" [italics mine]. Indeed, Cope, in describing rectipinna said as much but neither he nor anyone else has offered creditable evidence in support. On the contrary, a great amount of individual and sexual variation in the size of the dorsal fin has been observed and convincingly documented (cf. Scammon, 1869, Proc. Acad. Nat. Sci. Philadelphia, 21: 57, figs. 15–17; Scammon, 1874, Marine mammals of the northwestern coast of North America, pl. 17, figs. 1–3; Wilson, 1907 Nat. Antarctic Exped., 1901–1904, Zool., 2: 4, 6, fig. 6, pl. 4; Lillie, 1915, British Antarctic (Terra Nova) Expedition, 1910, Zool., 1(3): 120. In the absence of any other external or cranial character I treat Orcinus as monotypic.

# Genus GRAMPUS Gray

Grampus Gray, 1828, Spicilegia Zoologica, 1: 2 [subgenus of Delphinus; included species: D. griseus Cuvier, "D. grampus Linn.," D. globiceps Cuvier (=Globicephala melaena Traill), D. acutus Gray (=Lagenorhynchus acutus Gray), D. heavisidii Gray (=Cephalorhynchus heavisidei Gray), D. obscurus Gray (=Lagenorhynchus cruciger Quoy and Gaimard)]; 1846, Zoology of the voyage of H.M.S. Erebus and Terror, 1(Mammalia):

30 [type species: Grampus cuvieri Gray, new name for Delphinus griseus Cuvier, by restriction].—Reinhardt, 1862, Overs. Kongl. Danske Vid. Selsk. Forh., pp. 107, 148, ftn. 1 [Delphinus griseus type by subsequent selection].—Van Bénéden and Gervais, 1880, Ostéographie des Cétacés, p. 563 [taxonomic history; revision].—Winge, 1942, Interrelat. Mamm. Gen., 3: 253 [characters; classification].—Ellerman and Morrison-Scott, 1951, Checklist of Palaearctic and Indian mammals, p. 741 [type and included species: Grampus griseus Cuvier].—Schevill, 1954, Journ. Mammal., 35: 124 [type species: Delphinus griseus Gray; Grampidelphis Iredale and Troughton, 1933, a synonym].—Fraser and Purves, 1960, Bull. Brit. Mus. (Nat. Hist.), Zool., 7: 6, 57, 70, 100, fig. 21 (pterygoid sinus), fig. 25 (air sac system), fig. 26 (table) [auditory system; classification].—Hershkovitz, 1961, Fieldiana, Zool., 39: 547 [nomenclature; synonyms: Grayius Scott, Grampidelphis Iredale and Troughton].

Grayius Scott, 1873, Mammalia recent and extinct, p. 104 [new name for Grampus Gray, 1828 (work not seen)].

Grampidelphis Iredale and Troughton, 1933, Rec. Australian Mus., 19: 31 [new name for Grampus Gray, 1846; incorrectly regarded as a homonym of Grampus Gray, 1828].

Type species: *Delphinus griseus* Cuvier, by virtual selection (Gray, 1846, Zoology of the voyage of H.M.S. Erebus and Terror, 1(Mammalia): 30) and by formal subsequent selection (Reinhardt, 1862, Overs. Kongl. Danske Vid. Selsk. Forh., pp. 107, 148).

DISTRIBUTION: In eastern Pacific: recorded from Stuart Island, British Columbia, Monterey, California (37° N.), Isla Guadelupe, Baja California (31° N.), and presumed to occur off Chile; in western Pacific: from Kuriles and Japan to Chinese, Australian, and New Zealand Seas; Indian Ocean; Red Sea; in eastern Atlantic: from the British Isles and the Mediterranean to the Cape of Good Hope, South Africa; in the western Atlantic: from Massachusetts to New Jersey.

# Grampus griseus G. Cuvier

Delphinus griseus G. Cuvier, 1812, Ann. Mus. Hist. Nat., Paris, 19: 13–14, pl. 1, upper fig. (animal).

D[elphinus (Grampus)] griseus, Gray, 1828, Spicilegia Zoologica, 1: 2 [classification].

P[hocæna] griseus, F. Cuvier, 1836, Hist. Nat. Cétacés, p. 171 [characters; type history].

Grampus griseus, Hamilton, 1837, Jardine's Naturalist's Library, Mammalia, 6 (whales): 233, pl. 21 (animal) [characters; history].—Flower, 1872, Trans. Zool. Soc. London, 8: 1, pl. 1 (animal), pl. 2 (skeleton) [anatomy; taxonomy].—Van Bénéden and Gervais, 1880, Ostéographie des Cétacés, p. 562, pl. 64.—True, 1889, Bull. U.S. Nat. Mus., 36: 125,

131, 182, pl. 39, fig. 1 (animal), fig. 2 (skull) [taxonomy; distribution].— Beddard, 1900, Book of whales, p. 285 [characters; synonymy; habits].— Weber, 1923, Die Cetaceen der Siboga-Expedition, Siboga Expeditie, 58: 14 [S. Pacific: Indonesia (Lamakera, Solor)].—Fraser, in Norman and Fraser, 1938, Giant fishes, whales and dolphins, p. 301, pl. 7A (animal) [characters; habits].—Barnard, 1954, Guide book to South African whales and dolphins, South African Museum guide, 4: 25, fig. (animal) [S. Atlantic: South Africa (Walfish Bay)].—Schevill, 1954, Journ. Mammal., 35: 124 [N. Atlantic; nomenclature].— Tomilin, 1957, Mammals of eastern Europe and northern Asia, 9: 618 [N. Pacific: Kurile Isls.; ?Komandorskye Isls.].—Fraser and Purves, 1960, Bull. Brit. Mus. (Nat. Hist.), Zool., 7:17 et seq., fig. 7 (skull), pls. 41, 42 (skull) [auditory system].—Guiguet and Pike, 1965, Murrelet, 46(1): 16 [N. Pacific: Canada (Big Bay, west side of Stuart Island, British Columbia)].-Fiscus and Niggol, 1965, U.S. Fish and Wildlife Serv. Spec. Sci. Rep. Fisheries, no. 498 [N. Pacific: U.S.A. (California, 35°12' N., 122°04' W. (west of Morro Bay), to 41°42' N., 125°33′ W. (west of Crescent City))].

[Grampidelphis] griseus, Iredale and Troughton, 1933, Rec. Australian Mus., 19(1): 32[classification].

Grampidelphis griseus, Miller and Kellogg, 1955, Bull. U.S. Nat. Mus., 205: 662 [distribution in North America].—Hall and Kelson, 1959, Mammals of North America, p. 826, text fig. (animal), fig. 454 (skull) [characters; distribution in North America].—Hubbs, 1960, Syst. Zool., 9: 145 [N. Pacific: Mexico (Isla Guadelupe, Baja California)].

Gramphidelphis [sic] griseus, Kellogg, 1940, Nat. Geogr. Mag., 77(1): 85, pl. 21 (animal) [characters; habits; distribution].—Mann, 1957, Investig. Zool. Chilenas, 4: 102 [S. Pacific: Chile; key characters].

Delphinus aries G. Cuvier, 1812, Ann. Mus. Hist. Nat., 19:12, pl. 1, lower figure (animal with name) [N. Atlantic: France (type locality: Nice, Mediterranean Sea); name based on drawing of animal studied by M. Risso].

Delphinus Rissoanus Desmarest, 1822, Mammalogie, p. 519 [N. Atlantic: France (type locality: Mediterranean at Nice); new name for aries Cuvier].

Grampus rissoanus, Murie, 1871, Journ. Anat. Phys., 5: 131, pl. 5 (animal) [anatomy; taxonomic history].

D[elphinus] Risso [sic], Risso, 1826, Hist. Nat. Europe Mérid., 3: 23 [characters].

P[hocæna] rissonus [sic], F. Cuvier, 1836, Hist. Nat. Cétacés, p. 196, pl. 13 fig. 1 (animal) [characters].

Globicephalus Rissii, Hamilton, 1837 Jardine's Naturalist's Library, Mammalia, 6 (whales): 219, pl. 18 (animal) [name based on Cuvier's "dauphin de Risso"].—Anonymous, 1838, Chinese repository, Canton

- 6: 411 [S. Pacific: China (Lewchew, or Lu-chu, 110° E., 21° N., South China Sea); specimen taken on board the Morrison on its voyage to Lu-chu and Japan].—Blyth, 1859, Journ. Asiatic Soc. Bengal, 28: 491 [characters].
- Delphinus Rissoi [sic], Gervais, 1859, Zoologie et paléontologie françaises, ed. 2, pl. 37, figs. 1, 2 (skull) [N. Atlantic: France (Nice, Mediterranean Sea); the same name and figures may appear in the 1st edition of the work cited, published 1848–1852].
- Grampus Cuvieri Gray, 1846a, Ann. Mag. Nat. Hist., (1), 17: 85 [substitute name for *Delphinus griseus* Cuvier]; 1846b, Zoology of the voyage of H. M. S. Erebus and Terror, 1(Mammalia): 31 [characters].
- Grampus sakamata Gray, 1846, Zoology of the voyage of H. M. S. Erebus and Terror, 1(Mammalia): 31 [name based on the *Delphinus orca* of Temminck and Schlegel (not Linnaeus) 1841, Fauna Japonica, p. 25].
- Grampus sakata [sic], Tomilin, 1957, Mammals of eastern Europe and northern Siberia, 9(Cetacea): 613 [misprint in synonymy of Grampus griseus].
- Grampus Richardsoni Gray, 1850, Cat. Mamm. Brit. Mus., Cetacea, p. 85 [type locality unknown; type a lower jaw, in British Museum].
- Globiocephalus Chinensis Gray, 1866, Cat. seals and whales Brit. Mus., p. 323 [N. Pacific (type locality: near Leuchen, China, China seas); name based on "Chinese Globicephalus" of Blyth, "Rep. Asiatic Soc. II" (work not seen)].
- Grampus Stearnsii Dall, 1873, Proc. California Acad. Sci., 5: 13 [N. Pacific: U.S.A. (type locality: Monterey, California); type, lower jaws and Scammon's manuscript account of the "white-headed" or "mottled grampus" (cf. Scammon, 1874, Marine mammals, pp. 103, 299, figs. p. 102), a single mandible now in U.S. National Museum, no. 13021, collected by C. M. Scammon].
- Grampus souverbianus Fischer, 1881, Act. Soc. Linn. Bordeaux, 35: 210 [type locality unknown; type a skull in the Bordeaux Museum].
- Grampidelphis exilis Iredale and Troughton, 1933, Rec. Australian Museum, 19: 32, pl. 10, figs. 1–5 (skull) [S. Pacific: Australia (type locality: Ocean Beach, Manley, Sydney, New South Wales); Indian: Australia (Vasse River estuary, Geographe Bay, southwestern Australia)].
- Grampidelphis kuzira Iredale and Troughton, 1933, Rec. Australian Mus., 19: 34 [new name for Grampus sakamata Van Bénéden and Gervais, 1880, allegedly not of Gray, 1846].
- Delphinus orca, Temminck and Schlegel (not Linnaeus), 1841, Fauna Japonica, p. 25 [N. Pacific: the "sakamata-kuzira" of Japan; characters].
- Type: Stuffed skin and skull, Museum National d'Histoire Naturelle, Paris.

Type locality: Brest, France.

DISTRIBUTION: The same as for the genus.

#### Genus GLOBICEPHALA Lesson

Globicephala Lesson, 1828, Complement des oeuvres de Buffon ou Histoire naturelle des animaux rares découverts . . . depuis la mort de Buffon, 1 (Cétaces): 276 ("les globicéphales"), 441 (Globicephala, generic name) [includes species: Delphinus globiceps Cuvier, D. deductor Scoresby (=globiceps), D. rissoanus Cuvier (=Grampus griseus Cuvier)].—Flower, 1884, Proc. Zool. Soc. London, 1884: 418 [Globiceps Flower, 1884, preoccupied by Globiceps Pelletier and Serville, 1825, a genus of Hemiptera].—Thomas, 1898, The Zoologist, 2: 99 [correct name for blackfish].—Kellogg, 1928, Quart. Rev. Biol., 3:33 et seq. [history; relationship].—Winge, 1942, Interrelat. Mamm. Gen., 3: 305.—Fraser and Purves, 1960, Bull. Brit. Mus. (Nat. Hist.), Zool., 7: 52, 69, 72, 96, 107, 113, fig. 19 (pterygoid sinus), fig. 26 (table) [auditory system; classification].

Globicephalus Lesson, 1828, Férussac Bull. Sci. Nat., 16: 116 (in text) [emendation of or lapsus for Globicephala Lesson].—Hamilton Smith, 1837, Jardine's Naturalist's Library, Mammalia, 6(whales): 212 [generic name an emendation of Globicephala Lesson; included species: G. deductor (=Globicephala melaena Traill), G. rissii (=Grampus griseus Cuvier), G. cortesi Cuvier (fossil)].—Gray, 1846, Zoology of the voyage of H.M.S. Erebus and Terror, 1(Mammalia): 32 [characters; species].—Van Bénéden and Gervais, 1880, Ostéographie des Cétacés, p. 554 [review].—Flower, 1885, List Cetacea Brit. Mus., p. 19 [listed].—True, 1889, Bull. U.S. Nat. Mus., 36:183 [taxonomy].—Slijper, 1936, Die Cetaceen, vergleichend-anatomisch und systematisch (in text) [comparative anatomy; phylogeny].

Cetus Wagler, 1830, Nat. Syst. Amphibien, p. 33 [new name for Globicephala Lesson; preoccupied by Cetus Billberg, 1828 (=Physeter Linnaeus, 1758)].

Globiocephalus Gray, 1846 Zoology of the voyage of H.M.S. Erebus and Terror, 1(Mammalia): 32 [emendation of "Globicephala Lesson" (=Globicephala Lesson, 1828)].

Sphaerocephalus Gray, 1864, Proc. Zool. Soc. London, 1864: 244 [subgenus of Globiocephalus Gray (=Globiocephala Lesson); type species: Globiocephalus incrassatus Gray by monotypy; name preoccupied by Sphaerocephalus Eschscholtz, a beetle].—Flower, 1884, Proc. Zool. Soc. London, 1883: 510 [type species: Sphaerocephalus incrassatus Gray=Globiceps (=Globicephala) melas Traill].

Globiceps Flower, 1884, Proc. Zool. Soc. London, 1883: 508 [new name for Globicephala Lesson; taxonomy; Sphaerocephalus Gray 1864 a synonym;

name preoccupied by *Globiceps* Lepeletier and Serville, 1825, an insect, and Ayres, 1852, a coelenterate; *Globiceps* Van Bénéden, 1868 a nomen nudum].

Type species: Delphinus globiceps Cuvier (=Delphinus melas Traill), by original designation.

DISTRIBUTION: All seas from southern Greenland, Norway, Alaska, and Japan in the north to the Cape of Good Hope, Cape Horn, New Zealand, and Kerguelen Islands in the south.

## Globicephala melaena melaena Traill

Delphinus melas Traill, 1809, Nicholson's Journ. Nat. Philos. Chem. Arts, 22: 81, pl. 3 (animal).—Fraser, 1951, Ann. Mag. Nat. Hist., (12), 4: 943 [taxonomy].

Globiocephalus melas, Murie, 1874, Trans. Zool. Soc. London, 8: 235, pls. 30–38 (soft anatomy).—Dabbene, 1902, Anal. Mus. Buenos Aires, (3), 1: 350 [S. Atlantic: Argentina (Tierra del Fuego)].—Liouville, 1913, Deuxième Exped. Antarctique Française, 1908–1910, pp. 1, 159, fig. 14 (animal with scar from squid tentacles), fig. 15 (head), pl. 6, fig. 3 (animal) [taxonomy; characters; habits].

G[lobiceps] melas, Flower, 1884, Proc. Zool. Soc. London, 1883: 509 [N. Atlantic; S. Pacific: Australia (Tasmania); New Zealand; synonyms: affinis Gray, intermedius Harlan, Sphærocephalus incrassatus Gray].

Globicephalus melas, Flower, 1885, List Cetacea Brit. Mus., p. 19 [S. Atlantic: Falkland Islands; N. Atlantic; S. Pacific; synonyms: Delphinus globiceps Cuvier, Globiocephalus svineval Gray].—True, 1889, Bull. U.S. Nat. Mus., 36: 133, 183, pl. 40, fig. 1 (animal), fig. 2 (skull) [taxonomy; synonyms: Globiocephalus svineval Gray, G. affinis Gray, G. edwardsii [sic] A. Smith, G. incrassatus Gray, Delphinus intermedius Harlan, Spharocephalus incrassatus Gray].—Lahille, 1899, Primera reunión del Congreso Latinoamericano, 3: 201 [S. Atlantic: Argentina (Santa Cruz; Tierra del Fuego; Mar del Plata, Buenos Aires)].—Beddard, 1900, Book of whales, p. 280, pl. 19 (animal) [part; S. Pacific: New Zealand; S. Atlantic: South Africa (Cape of Good Hope); synonyms: edwardsi Smith, globiceps Cuvier].-Lahille, 1905, Rev. Jardín Zool. Buenos Aires, 1905: 63 [S. Atlantic: Argentina (Golfo Nuevo, Chubut; Santa Cruz; Tierra del Fuego)].—Schneider, 1936, Comun. Mus. Concepción (Chile), año 1(6): 105 [S. Pacific: Chile (Ancud; Los Vilos, Coquimbo); Globicephalus chilensis Philippi a synonym].-Cabrera and Yepes, 1940, Mamíferos sudamericanos, p. 300 [characters; habits].—Yañez, 1948, Rev. Biol. Marina, Valparaiso, 1: 116 [S. Pacific: Chile; characters; local name: "calderón negro"].—Mann, 1957, Invest. zool. chilenas, 4: 99 [key characters].

Globicephala melas, Sapin-Jaloustre, 1953, Mammalia, 17(4): 253, fig. 22 (animal) [sighting characters].—Cabrera, 1961, Rev. Mus. Argentino

Cienc. Nat. "Bernardino Rivadavia," 4: 617 [distribution in South American waters].

G[lobicephalus] m[elas] melas, Tomilin, 1957, Mammals of eastern Europe and northern Asia, 9: 633 [name restricted to North Atlantic populations].

Globicephala melana, Thomas, 1898, Zoologist, (4), 2: 99 [specific feminine form of Globicephalus melas].-Lillie, 1915, British Antarctic (Terra Nova) Expedition, 1910, Zool., 1(3): 121 [N. Atlantic: 11°20' N., 24°37′ W.; S. Atlantic: 42°09′ S., 55°15′ W.; S. Pacific: New Zealand].—Oliver, 1922, Proc. Zool. Soc. London, 1922: 578 [S. Pacific: New Zealand].—Fraser, in Norman and Fraser, 1938, Giant fishes, whales and dolphins, p. 303, fig. 77 (animal) [characters; habits]; 1951, Ann. Mag. Nat. Hist., (12), 4: 943 [taxonomy].—Hall and Kelson, 1959, Mammals of North America, p. 828, fig. (animal) [characters; synonymy].—Davies, 1960, Journ. Mammal., 41: 29 [part, variation; distribution; synonyms: leucosagmaphora Rayner, edwardi A. Smith].—Fraser and Purves, 1960, Bull. Brit. Mus. (Nat. Hist.), Zool., 7: 6, 17, 23, 30, 52, 111, 118, fig. 9 (skull), fig. 27 (ear), pl. 2 (mucous membrane of pterygoid sinus), pl. 33, 34 (skull), pl. 49 (middle ear)].—Brown, 1961, Norsk Hvalf.-Tid., 50: 241 [N. Atlantic: southern limits: Virginia and the Mediterranean].

Globicephala melaena, Sergeant, 1962, Bull. Fisheries Res. Board Canada, 132: fig. 3 (herd driving), fig. 4 (animals), figs. 5–9 (dental sections), fig. 14 (sucker marks), figs. 21–23 (ovaries), fig. 24 (mammae) [N. Atlantic: Canada (Newfoundland); growth; age determination; food; predators; parasites; reproduction; longevity; behavior; whaling].

[Globicephala] melaena, Davies, 1963, Evolution, 17: 111 [distribution (North Atlantic and temperate southern hemisphere)].

Globicephala melaena melaena, Sergeant, 1962, Journ. Mammal., 43: 395, pl. 1 (animal), pl. 2 (fetus), pl. 3 (dorsal fin) [characters; comparisons; allometric growth].

Globicephala mela [sic], Morice, 1958, Rev. Trav. Inst. Pêches Maritimes, 22(1): 85, 103 [N. Atlantic: West Indies (St. Vincente; Bequia; La Dominique)].

Delphinus globiceps G. Cuvier, 1812, Ann. Mus. Hist. Nat., Paris, 19: 14, pl. 1 (animal) ["le dauphin de St. Brieux," France].

Phocena globiceps, A. Smith, 1834, African Zoology, South African Quart. Journ., (2), no. 3, pt. 2 [work not seen; S. Atlantic: South Africa (Cape of Good Hope)].

Globicephalus globiceps, Philippi, 1893, Anal. Mus. Nac. Chile, (1), Zool. (6): 17 [S. Pacific: Chile (Chiloé Island; Los Vilos, Coquimbo, 32° S.); specimens regarded as identical with *Delphinus globiceps* Cuvier, 1812 (redescribed in 1896 as *G. chilensis*)].

- Delphinus deductor Scoresby, 1820, Account Arctic regions, 1: 496, pl. 13, fig. 1 (animal ex Traill) [N. Atlantic: Great Britain (Orkney, Shetland, and Faeroe Islands); characters; habits; new name for D. melas Traill].
- Delphinus grinda Lyngbye, in Örsted, 1824, Kongl. Danske Vidensk. Selsk. Afh., 1: xi [N. Atlantic: Great Britain (type locality: Faeroe Islands)].—Lyngbye, 1825, Tidskr. Naturvid., 1: 204–232 [N. Atlantic: Great Britain (Faeroe Islands); characters; comparisons; commerce].—Lyngbye, 1825, Froriep Notizen, 12(245): 32 [German translation of preceding].
- Delphinus intermedius Harlan, 1827, Journ. Acad. Nat. Sci. Philadelphia, 6: 51, pl. 1, fig. 3 (animal) [N. Atlantic: U.S.A. (type locality: Salem Harbor, Massachusetts); type a drawing by Dr. Charles Pickering of a female harpooned September 1823].
- Gl[obiocephalus] intermedius, Van Bénéden and Gervais, 1868–1879, Ostéographie des Cétacés, Atlas, pl. 52, fig. 3 (skull) [N. Atlantic: French West Indies (Guadeloupe)]; 1880, ibid., p. 559 [characters].
- Delphinus Harlani Fischer, 1829, Syn. Mamm., p. 456 (=656) [new name for Delphinus intermedius Harlan erroneously regarded as preoccupied by D. intermedius Gray 1827 (=Feresa attenuata Gray)].
- Phocaena Edwardii A. Smith, 1834, African Zoology, South African Quart. Journ., (2), 3(2): 239 [work not seen; S. Atlantic: South Africa (type locality: Slang-kop, near Cape of Good Hope); type a stuffed skin with skull separate in British Museum, no. 53.9.18.26].—Fraser, 1950, Atlantide Rep., 1: 51 [characters; comparisons].
- Phocæna Edwardsii [sic], True, 1889, Bull. U.S. Nat. Mus., 36: 135 [taxonomy; regarded as a synonym of Globiocephalus melas].
- Globiocephalus Edwardsii [sic], Gray, 1866, Cat. seals and whales Brit. Mus., p. 320 [original description quoted; type a figure and description by Verreaux of a stranded individual; original figure presented to Gray by A. Smith].
- G[lobicephala] m[elaena] edwardi, Davies, 1960, Journ. Mamm., 41: 34 [leucosagmaphora Rayner a synonym; trinomial available for southern form of pilot whale].—Sergeant, 1962, Journ. Mammal., 43: 396 [S. Pacific: Tasmania; characters; comparisons; growth].
- Globicephalus conductor Rapp, 1837, Die Cetaceen, p. 34 [technical name for the Globicephale conducteur of Lesson (1828, Hist. Nat. Cétacés, p. 216) in synonymy of Delphinus globiceps Cuvier].
- Globiocephalus affinis Gray, 1846, Zoology of the voyage of H. M. S. Erebus and Terror, 1(Mammalia): 32 [type locality unknown; type skull, Royal College of Surgeons, no. 1138; synonyms: Delphinus grampus (ms., Catalog Museum College of Surgeons, no. 1138, Hunterian collection, no. 686); D. melas, Owen (British Fossil Mamm.)]; 1866, Cat. seals and whales Brit. Mus., p. 317 [characters].

Globicephalus affinis, True, 1889, Bull. U.S. Nat. Mus., 36: 134 [classification based on specimen in College of Surgeons, no. 2999, and with dental formula  $\frac{11-11}{12-12}$ , which is not of type].

Grampus affinis, Gray, 1866, Cat. seals and whales Brit. Mus., p. 300 [classification; characters].

G[lobiceps] affinis, Flower, 1884, Proc. Zool. Soc. London, 1883: 508 [characters; taxonomic history].

Globiocephalus Svineval Gray, 1846, Zoology of the voyage of H. M. S. Erebus and Terror, 1(Mammalia): 32 [N. Atlantic (type locality: "coast of North America"); types, two skulls in the Museum of the College of Surgeons, nos. 1137, 1138, originally labelled Delphinus grampus; synonyms: "le cachalot svineval" (figure of skull only ex Lacépède, 1804, Hist. Nat. Cétacés, pl. 9, fig. 2), Delphinus melas Traill, Delphinus deductor Scoresby, D. globiceps Cuvier].

Delphinus grampus Gray, 1846, Zoology of the voyage of H. M. S. Erebus and Terror, 1(Mammalia): 32 [in synonymy of Globiocephalus svineval Gray, 1846 (see above); name preoccupied by Delphinus grampus Blainville, 1817].

Globiocephalus macrorhynchus Gray, 1846, Zoology of the voyage of H. M. S. Erebus and Terror, 1(Mammalia): 33 ["South Seas" (type locality); type, skull only, formerly in the Royal College of Surgeons, now in the British Museum (Natural History), no. 1946.8.9.2; originally presented by J. Bennett (cf. Fraser, 1950, Atlantide Rep., 1: 50)]; 1866, Cat. seals and whales Brit. Mus., p. 320 [characters; habits].

Globicephalus macrorhynchus, True, 1889, Bull. U.S. Nat. Mus., 36: 138, 186 [taxonomy].

Globicephala macrorhyncha, Fraser, 1950, Atlantide Rep., 1: 49, figs. 1, 2 (animals), pls. 3, 4 (skulls), pl. 5, fig. 1 (type skull), pl. 5, fig. 2 (Malacca skull) [S. Atlantic: South Africa (Cape of Good Hope); N. Atlantic: Senégal (Dakar); U.S.A. (Osprey, Florida; Dam Neck Mills, Virginia); Indian: Malacca (Alor Island, Java Sea); characters; comparisons; synonyms: indica Blyth, brachypterus Cope, globiceps A. Smith (not Cuvier); scammoni possibly a synonym].—Barnard, 1954, Guide book to South African whales and dolphins, South African Museum guide, 4: 25 [S. Atlantic: South Africa; Indian: Kerguelen Island].-Hershkovitz, 1961, Fieldiana, Zool., 39: 550 [synonyms: carbonarius Wagner, fuscus Reichenbach].—Brown, 1961, Norsk Hvalf.-Tid., 50(6): 241 [N. Atlantic: distribution (Madeira and New Jersey southward); seasonal distribution].—Sergeant, 1962, Journ. Mammal., 43: 395 [Indian; N. Atlantic: U.S.A. (Flagler's Beach, Florida); characters; comparisons].—Caldwell and Erdmann, 1963, Journ. Mammal., 44 113 [N. Atlantic: Cuba; Bahamas; Haiti; Puerto Rico; Virgin Islands; Dominica].

- Globiocephala? macrorhyncha, Gibson Hill, 1950, Bull. Raffles Mus., Singapore, 22: 278 [Indian: Cocos-Keeling Islands; strandings in Indian Ocean].
- G[lobiceps] macrorlyncha, Flower, 1884, Proc. Zool. Soc. London, 1883: 509 [characters; comparisons; synonyms: intermedius Van Bénéden and Gervais (not Harlan), brachypterus Cope, scammoni Cope].
- [Globicephala] macrorhyncha, Davies, 1963, Evolution, 17: 111 [distribution (Caribbean to East Indies)].
- D[elphinus] carbonarius Wagner, 1846, Schreber's Säugthiere, 7: 305, pl. 352, fig. 1 (animal) [name based on the blackfish *Phocaena* sp., of Bennett, 1840, recorded from the Atlantic, Pacific, and Indian Oceans, from 50° N. to 35° S., including Coast of California and Indian Archipelago].
- G[lobicephalus] Fuscus Hamilton, 1837, Jardine's Naturalists' Library, Mammalia, 6: 220 [nomen nudum].
- Delphinus fuscus, Reichenbach, 1846, Vollständigste Naturgeschichte des Ins- und Auslande, Cetaceen, p. 77 [S. Pacific: between Friendship Islands and Australia; name attributed to Jardine and based on the "blackfish" described by Lesson (1826, Voy. La Coquille, p. 185)].
- G[lobicephala] indica Blyth, 1852, Journ. Asiatic Soc. Bengal, 21: 358 [India (type locality: Hugly River, near Serampore, West Bengal); type skin and skeleton mounted separately in the Museum of the Asiatic Society, Calcutta; presented 1852 by C. T. Lushington].—Blyth, 1859, Journ. Asiatic Soc. Bengal, 28: 484 (ftn.), 491 [India (Saltwater Lake, Calcutta, July 1852); Hugli (Hooghly) River, near Serampore, 1858].—Blanford, 1891, Fauna of British India, p. 577 [India (type locality: Saltwater Lake, Calcutta); characters].
- Globiocephalus incrassatus Gray, 1862, Proc. Zool. Soc. London, 1861: 309, figs. pp. 311, 312 (skull) [N. Atlantic: Great Britain (type locality: Bridgeport, Dorsetshire); type skull, British Museum].
- Sphaerocephalus incrassatus Gray, 1866, Cat. seals and whales Brit. Mus., p. 324, figs. 63, 64 (skull) [characters].
- [?] Globiocephalus propinquus Malm, 1871, Kongl. Svenska Vet.-Akad. Handl., 9: 85 [N. Atlantic: type locality near the equator; type skeleton in Göteborg Museum; collected by Commodore K. L. Natt].
- Globiocephalus guadaloupensis Gray, 1871, Suppl. Cat. seals and whales Brit. Mus., p. 84 [N. Atlantic: French West Indies (type locality: Guadeloupe Island); name based on the *Globiocephalus intermedius* of Gervais and Van Bénéden, 1868–1880 (not Harlan); type skull in the Paris Museum].
- Globiocephalus australis Gray, 1871, Suppl. Cat. seals and whales Brit. Mus., p. 85 [nomen nudum; "Coast of Australia. In Museum of Sydney"].
- Globicephalus brachypterus Cope, 1876, Proc. Acad. Nat. Sci. Philadelphia, 28: 129, figs. 1–3 (skull) [N. Atlantic: U.S.A. (type locality: east

coast of Delaware Bay at mouth of Maurice River); type skeleton, Academy of Natural Sciences, Philadelphia].

Globicephala brachycephala [sic], Cadenat, 1957, Bull. Inst. Français Afrique Noire, 19(A): 1357 [N. Atlantic: Sénégal; name a lapsus for brachyptera Cope].

Globiocephalus chilensis Philippi, 1896, Anal. Mus. Nac. Chile, Zool. Entr., 12a: 7, pl. 1, figs. 3, 4 (skull) [S. Pacific: Chile (type locality: Los Vilos, Coquimbo, and Chiloé Island); types, 2 skeletons in Santiago Museum].—True, 1903, Proc. Biol. Soc. Washington, 16: 140, 143 [taxonomy].

Globicephala leucosagmaphora Rayner, 1939, Ann. Mag. Nat. Hist., (11), 4: 543 [S. Atlantic: South Africa (type locality: south of Cape of Good Hope); S. Pacific: New Zealand].—Fraser, 1950, Atlantide Rep., 1: 52, pl. 1, fig. 1 (skull) [S. Atlantic: Falklands; characters; comparisons; *Phocaena Edwardii* A. Smith, 1834, similar].—Hamilton, 1952, Comun. Zool. Mus. Hist. Nat. Montevideo, 4(66): 2, 4 [S. Atlantic: Falklands].

G[lobicephala] m[elas] l[eucosagmaphora.], Tomilin, 1962, Cetacea of the U.S.S.R., Fauna U.S.S.R., 79: 182 [part; Indian; S. Pacific].

Phocæna sp. Bennett, 1840, Narrative of a whaling voyage round the globe, 2: 233–235, fig. (animal) [Atlantic, Pacific, and Indian Oceans from 50° N. to 35° S.].

Globicephala scammonii, Bailey (part, not Cope), 1936, North American Fauna, 55: 346 [S. Pacific: Peru; Ecuador (southern ocean records ex Scammon, 1874, Marine mammals of the northwestern coast of North America, p. 87)].—Cabrera, 1961, Rev. Mus. Argentino Cienc. Nat. "Bernardino Rivadavia," 4: 618 [distribution in South American waters].

Globicephalus ventricosus, Iredale and Troughton (not Lacépede), 1933, Rec. Australian Mus., 19(1): 35 [Delphinus ventricosus Lacépède (=Phocoena phocoena Linnaeus) erroneously applied to a pilot whale (cf. Fraser, 1951, Ann. Mag. Nat. Hist., (12), 4: 942)].

Globicephala ventricosa, Kellogg (not Lacépède), 1940, Nat. Geogr. Mag., 77(1): 69, pl. 12 (animal) [characters; habits; distribution].

Globicephala sp., Lévèque, 1963, Mammalia, 27(4): 608 [S. Pacific: Ecuador (Guayaquil)].

LECTOTYPE: Figured specimen, one of 92 whales stranded December 1806; skull now in British Museum (Natural History), no. 363a-44.12.3.2; purchased 1844 from Professor Traill (cf. Flower, 1885, List Cetacea Brit. Mus., p. 20).

Type locality: Scapay Bay, Pomona, Orkney Islands, Scotland.

DISTRIBUTION: Atlantic, Pacific, and Indian Oceans from 70° north to approximately 60° south.

Remarks: Distinction of southern pilot whales from northern are based on individual or pod variables; further, a geographic basis for separating

these wide-ranging and migratory dolphins into northern and southern races does not exist. Recognition of the northern Pacific G. m. sieboldii simply follows a pattern that may be as much subjective as objective.

### Globicephala melaena sieboldi Gray

- Delphinus globiceps, Temminck (not Cuvier), 1841, Fauna Japonica, pl. 27, fig. 1 (young animal), figs. 2, 3 (skull), fig. 4 (teeth) [N. Pacific: Japan (Nagasaki)].
- Globiocephala Sieboldii Gray, 1846, Zoology of the voyage of H. M. S. Erebus and Terror, 1(Mammalia): 32.—True, 1886, Bull. U.S. Nat. Mus., 36: 142 ["it will very probably prove to be identical with G. scammonii"]—Fraser, in Ellerman and Morrison Scott, 1951, Checklist of Palaearctic and Indian mammals, p. 741 ["premaxillae more like macrorhynchus or scammoni than melaena"].
- Globicephala Sieboldii, Kuroda, 1938, List of Japanese mammals, p. 19 [N. Pacific: Japan].
- Globicephala sieboldii, Hershkovitz, 1961, Fieldiana, Zool., 39: 551 [antedates macrorhyncha and scammoni].
- Globicephalus Scammonii Cope, 1869, Proc. Acad. Nat. Sci. Philadelphia, 21: 21, figs. 12, 13 (sketch of animal) [N. Pacific: Mexico (type locality: 10 miles off coast of Baja California, 31° N.); type, 1 of 3 specimens captured Dec. 14, 1862, and described by Scammon (1874 Marine mammals of the northwestern coast of North America, p. 68); cotype skull in U.S. National Museum, no. 9074].
- Globicephala scammonii, Kuroda, 1938, List of Japanese mammals, p. 19 [N. Pacific: Japan].—G. M. Allen, 1938, Mammals of China and Mongolia, 1: 506 [N. Pacific: China (Yangtze Estuary)].—Scheffer and Slipp, 1948, American Midl. Nat., 39: 289 [N. Pacific: U.S.A. (Washington State; southern California)].—Miller and Kellogg, 1955, Bull. U.S. Nat. Mus., 205: 664 [N. Pacific: Kanatak, Alaska to Guatemala].
- G[lobicephala] scamonii [sic], Nishiwaki, 1957, Coll. Rep. Fish Sci. Tokyo Univ., p. 152 [N. Pacific: Japan].
- Globicephalus scammoni, True, 1889, Bull. U.S. Nat. Mus., 36: 139, 185, pl. 42, fig. 1 (animal), fig. 2 (skull) [characters; comparisons].
- G[lobicephala] scammoni, Sowerby, 1926, China Journ. Sci. Arts, 5: 200
   [N. Pacific: China (Gutslaff Island, Yangtze Estuary)].—Fraser, 1950,
   Atlantide Rep., 1: 49, 53, 58, 59 [comparisons; doubtfully distinct from macrorhyncha Gray].
- Globicephala scammoni, Norris and Prescott, 1961, Univ. California Publ. Zool., 63: 293, 300, 336 [N. Pacific: U.S.A. (southern California); characters; habits].—Sergeant, 1962, Journ. Mammal., 43: 396 [characters; comparisons].
- G[lobicephalus] m[elas] scammonii, Tomilin, 1957, Mammals of eastern Europe and northern Asia, 9(Cetacea): 633 [N. Pacific: distribution

(Alaska to Washington and Japan)].—Tomilin, 1962, Cetacea of the U.S.S.R., Fauna U.S.S.R., 79: 182 [N. Pacific: Japan; China; Canada; U.S.A. (Washington); Mexico (Baja California)].

Globiocephalus sibo Gray, 1871, Suppl. Cat. seals and whales Brit. Mus., p. 85 [N. Pacific: Japan (type locality); type, the Japanese "sibo golo" described by Gray (1846, Zoology . . . Terror, vol. 1) under his Globiocephalus sieboldii].

G[lobicephala] melaena, Nishiwaki (not Traill), 1957, Coll. Rep. Fish Sci. Tokyo Univ., p. 152 [N. Pacific: Japan].

Globicephala macrorhyncha, Rice (not Gray), 1963, Norsk Hvalf.-Tid., 52: 156 [N. Pacific: U.S.A. (San Clemente Island, southern California)].

Type: "Figure of a young specimen . . . made by M. Villeneuve, which is copied in the 'Fauna Japonica' [Temminck, 1841, pl. 27], and [its] complete skeleton brought from Japan by M. Siebold"; type stranded October 1827, its skeleton now in the Leiden Museum (cf. Jentink, 1887, Cat. Ostéol. Mamm. Mus. Hist. Nat., Pays-Bas, 9: 175).

Type locality: Near Nagasaki, Japan.

DISTRIBUTION: North Pacific from Alaska to Guatemala on the east, Japan and the Yangtze Estuary, China, on the west.

#### Genus FERESA Gray

Feresa Gray, 1870, Proc. Zool. Soc. London, 1870: 77; 1871, Suppl. Cat. seals and whales Brit. Mus., p. 78 [subgenus of Orca Gray].—Yamada, 1954, Sci. Rep. Whales Res. Inst., 9: 59 [review].—Winge, 1942, Interrelat. Mamm. Gen., 3: 252 [characters; classification].—Fraser and Purves, 1960, Bull. Brit. Mus. (Nat. Hist.), Zool., 7: 97, 107, fig. 19 (pterygoid sinus), fig. 24 (air sac system), fig. 26 (table) [auditory system; classification].

Feresia Flower, 1884, Proc. Zool. Soc. London, 1883: 510 [emendation of Feresa Gray; characters].

Type species: Orca intermedia Gray (=Feresa attenuata Gray), by monotypy.

DISTRIBUTION: Recorded from coast of Sénégal, North Atlantic, and Taiji, Honshu, Japan, North Pacific.

# Feresa attenuata Gray

Delphinus intermedius Gray, 1827, Philos. Mag. or Annals, (2), 2(2): 376 [type a skull only, British Museum (Natural History), no. 362a, from unknown locality; name preoccupied by Delphinus intermedius Harlan, 1827, Journ. Acad. Nat. Sci. Philadelphia, 6: 51, pl. 1, fig. 3 (June) (=Globicephala melaena Traill)].

Grampus intermedius, Gray, 1843, List Mamm. Brit. Mus., p. 106 [listed]. Orca intermedia, Gray, 1846, Zoology of the voyage of H.M.S. Erebus and Terror, 1(Mammalia): 34, pl. 8 (skull) [characters]; 1850, Cat. Mamm.

Brit. Mus., Cetacea, p. 96 [characters]; 1866, Cat. seals and whales Brit. Mus., p. 283; 1870, Proc. Zool. Soc. London, 1870: 77 [characters; type of *Feresa*].

Feresa intermedia, Gray, 1871, Suppl. Cat. seals and whales Brit. Mus., p. 78 [type, skull of adult]; 1875, Journ. Mus. Godeffroy, 8: 184 [characters; comparisons].—True, 1889, Bull. U.S. Nat. Mus., 36: 107, 175, pl. 30, fig. 2 (skull) [characters; F. attenuata Gray a synonym].—Yamada, 1954, Sci. Rep. Whales Res. Inst., 9: 59, fig. 1 (animal), fig. 2 (dorsal fin), fig. 3 (flippers), fig. 4 (tail), figs. 5–7 (skull), fig. 8 (teeth), figs. 9–15 (postcranial skeletal parts) [N. Pacific: Japan (Taiji, southeast of Osaka); external and osteological characters; Feresa attenuata Gray a synonym].—Fraser and Purves, 1960, Bull. Brit. Mus. (Nat. Hist.), Zool., 7: 53, pl. 35 (skull) [auditory system].

Feresa intermedia? Cadenat, 1958, Bull. Inst. Français Afrique Noire, 20(A): 1486, figs. 1-4 (skull) [N. Atlantic: Sénégal (Yenn); characters; comparisons].

F[eresia (sic)] intermedia, Flower, 1884, Proc. Zool. Soc. London, 1883: 510–511 [characters; comparisons; Feresia (sic) attenuata Gray a synonym].

Feresia [sic] intermedia, Flower, 1885, List Cetacea Brit. Mus., p. 22 [type skull figured in Gray, 1846, Zoology . . . Erebus and Terror, 1: pl. 8; British Mus., no. 4a-362a; F. attenuata Gray a synonym; type skull, Brit. Mus., no. 1672a-74.11.25.1].

Feresa attenuata Gray, 1875, Journ. Mus. Godeffroy (Hamburg), 8: 184.— Fraser, 1960, Bull. Inst. Français Afrique Noire, 22(A): 699, fig. 1a (type skull of intermedia), fig. 1b (type skull of attenuata), fig. 1c (skull from Yenn) [N. Atlantic: Yenn, Sénégal; characters; comparisons; synonyms: intermedia Gray (preoccupied), occulta Jones and Packard]. Nishiwaki, Kasuya, Kamiya, Toboyama, Nakajima, 1965, Sci. Rep. Whales Res. Inst., 19: 65, figs. 4–6 (animals), fig. 7 (dorsal vertebrae), fig. 8 (flippers), table 9 (scapula), table 10 (sternum), table 11 (hyoid), pl. 1 (fetus and adults), pls. 2, 3 (skulls), pl. 4 (vertebrae), pl. 5 (flipper, fin, flukes) [N. Pacific: Japan (Sagami Bay, Honshu); characters; habits].

Feresia [sic] attenuata, Flower, 1884, Proc. Zool. Soc. London, 1883: 510, 511 [characters; comparisons; regarded as a synonym of F. intermedia Gray].

Feresa occulta Jones and Packard, 1956, Proc. Biol. Soc. Washington, 69: 167 [new name for *Delphinus intermedius* Gray, preoccupied].— Hall and Kelson, 1959, Mammals of North America, p. 830, fig. (animal), fig. 456b (skull) [N. Pacific: Japan (Taiji, Honshu)].

Type: Skull only, British Museum (Natural History), no. 1672a-74.11.25.1.

Type locality: Unknown.

DISTRIBUTION: The same as for the genus.

#### Genus PHOCOENA G. Cuvier

Phocæna G. Cuvier, 1817, Règne animal, ed. 1, 1:279 [type species: Delphinus phocæna Linnaeus, by monotypy].—Desmarest, 1817, Nouv. Dict. Hist. Nat., 9: 163 [characters].—Hershkovitz, 1961, Fieldiana, Zool., 39: 551 [nomenclature].

Phocoena Norris and McFarland, 1958, Journ. Mammal., 39: 22 [taxonomic review].

Phocena Gray, 1821, Med. Repository, 15: 310 [emendation or misprint of Phocena Cuvier; includes species P. phocena (sic) Linnaeus].

Phocæna Gray, 1828, Spicilegia Zoologica, 1: 2 [subgenus of Delphinus Linnaeus for "D. Phocæna (sic) of Linné"]; 1866, Cat. seals and whales Brit. Mus., p. 301 [review].—Flower, 1884, Proc. Zool. Soc. London, 1883: 505 [taxonomy].—True, 1889, Bull. U.S. Nat. Mus., 36: 117, 179 [taxonomy].

Phocaena Kellogg, 1928, Quart. Rev. Biol., 3: 33 et seq., 194 [history; relationship; body temperature].—Winge, 1942, Interrelat. Mamm. Gen., 3: 253, 285, 291 [characters; classification].

Acanthodelphis Gray, 1866, Cat. seals and whales Brit. Mus., p. 304 [type species: *Phocana* (sic) *spinipinnis* Burmeister, by monotypy].

Type species: Delphinus phocana Linnaeus, by monotypy.

DISTRIBUTION: Arctic and North Atlantic: from Barents Sea and Davis Strait to New Jersey on the west, the Mediterranean on the east; South Atlantic: from Rio de la Plata (35° S.) to Cape Horn and South Georgia; Arctic and North Pacific: from Alaska to coast of Jalisco, Mexico, on the east and the Japanese Sea on the west; South Pacific: from Paita, Peru (5° S.), to Cape Horn.

# Phocoena spinipinnis Burmeister

Phocaena spinipinnis Burmeister, 1865, Proc. Zool. Soc. London, 1865: 228.—Gray, 1866, Cat. seals and whales Brit. Mus., p. 304 [characters].—Burmeister, 1867, Zeitschr. Gesammten Naturw., 29: 4 [S. Atlantic: Argentina (Buenos Aires)]; 1869, Anal. Mus. Publ. Buenos Aires, 1(6): 380, pl. 23 (animal), pl. 24 (skull) [characters].—True, 1889, Bull. U.S. Nat. Mus., 36: 122, 180, pl. 36, fig. 1 (animal), fig. 2 (skull) [taxonomic review].—Figueira, 1894, Anal. Mus. Nac. Montevideo, 2: 12 (separate) [S. Atlantic: Argentina (Río de La Plata, Argentina)].-Lahille, 1899, Primera reunión del Congreso Latinoamericano, 3: 201 [listed].—Beddard, 1900, Book of whales, p. 251 [characters].—True, 1903, Proc. Biol. Soc. Washington, 16: 136, 143 [Phocaena philippii Perez Canto a synonym].—Lahille, 1905, Rev. Jardín Zool. Buenos Aires, 1905: 57 [characters].—G. M. Allen, 1925, Bull. Mus. Comp. Zool., 67: 251 [S. Pacific: Peru (Payta = Paita); taxonomy; external and osteological characters; comparisons; philippii Perez Canto a synonym].—Fraser, in Norman and Fraser, 1938, Giant fishes, whales and dolphins, p. 310, fig. 73 (animal) [characters].—

Mann, 1957, Invest. Zool. Chilenas, 4: 102 [key characters]. Norris and McFarland, 1958, Journ. Mammal., 39: 24 (in text), pls. 1, 2, 3, fig. B (skull) [characters; comparisons; distribution].—Clarke, 1962, Norsk Hvalf.-Tid., 51: 229, ftn. 1 [S. Pacific: Peru (Chimbote, 09°-04′ S., 78°34′ W.; sold in fish market)].

P[hocæna] spinipinnis, Yañez, 1948, Rev. Biol. Marina, Valparaiso, 1: 116 [S. Pacific: Chile].

Phocoena spinipinnis, Norris and McFarland, 1958, Journ. Mammal., 39: 32, pls. 1–3B (skull) [distribution; comparisons].

Phocaena spinipennis [sic], Van Bénéden, 1868, Bull. Acad. Roy. Sci., Belgique, 25: 96 [type skeleton in Buenos Aires Museum].—Trouessart, 1898, Cat. Mamm., p. 1043 [misspelling].

Acanthodelphis spinipinnis, Gray, 1868, Synopsis whales and dolphins Brit. Mus., p. 8 [classification]; 1871, Suppl. Cat. seals and whales Brit. Mus., p. 81 [classification; "coast of Brazil"].

Phocena Philippii Perez Canto, 1893, in Philippi, Anal. Mus. Nac. Chile, (1), Zool. (6): 9, pl. 3, fig. 2 (animal) [S. Pacific: Chile (type locality); name based on an individual now represented solely by the colored figure in plate 3 drawn by the author].—True, 1903, Proc. Biol. Soc. Washington, 16: 136, 143 [a synonym of Phocaena spinipinnis].

Acanthodelphis (Phocæna) philippii, Philippi, 1896, Anal. Mus. Nac. Chile, Zool., Entr., 12a: 8, pl. 2, fig. 2; pl. 3, figs. 1–5 (skull) [S. Pacific: Chile (Bahía de Talcahuano, Concepción); cranial characters].

[Cephalorhynchus]? Philippii, Trouessart, 1898, Cat. Mamm., p. 1041 [classification].

Type: Skin mounted, skull separate, in Buenos Aires Museum; captured alive by fishermen.

Type locality: Mouth of Río de La Plata, Buenos Aires, Argentina. Distribution: Coast of southern South America from the Río de La Plata (35° S.) on the east, and Paita, Peru (5° S.), on the west, southward.

#### Phocoena sinus Norris and McFarland

Phocoena vomerina, Hall and Kelson (part, not Gill), 1959, Mammals of North America, pp. 831, 1081 [N. Pacific: Mexico (Banderas Bay, Jalisco)].

Phocoena sinus Norris and McFarland, 1958, Journ. Mammal., 39: 22,
24, pls. 1–3, fig. A (skull), pl. 4 (skull).—Norris and Prescott, 1961,
Univ. California Publ. Zool., 63: 349 [N. Pacific: distribution; behavior].

Type: Skull only, Museum of Vertebrate Zoology, University of California, no. 120933; collected Mar. 18, 1950, by Kenneth S. Norris.

Type locality: Northeast shore of Punta San Felipe, Baja California Norte, Gulf of California, Mexico.

DISTRIBUTION: Northern Pacific from upper Gulf of California to Tres Marías Islands and Banderas Bay, Jalisco, Mexico.

### Phocoena dioptrica Lahille

[?] Phocaena obtusata Philippi, 1893, Anal. Mus. Nac. Chile, (1), Zool., 6: 12, pl. 3, fig. 1 (animal) [S. Pacific: Chile (type locality: Bahía de Talcahuano, Concepción); type in Museo Nacional de Santiago, received 1888 from Sr. Federico Godoy].

[?] Cephalorhynchus? obtusata, True, 1903, Proc. Biol. Soc. Washington, 16: 139, 143 [classification; type probably immature].

Phocaena dioptrica Lahille, 1912, Anal. Mus. Nac. Hist. Buenos Aires, 23: 269, pls. 6–7 (animal), pl. 8 (fetus of type), pl. 9, fig. 5 (animal).—Bruch, 1916, Physis, 11: 461, figs. (male and female) [S. Atlantic: Argentina (Río Santiago, Buenos Aires); measurements].—Fraser, in Norman and Fraser, 1938, Giant fishes, whales and dolphins, p. 312, fig. 80 (animal) [S. Atlantic: "River Plate to South Georgia"; characters; "may be same as P. obtusata"].—Cabrera and Yepes, 1940, Mamíferos sudamericanos, p. 300 [S. Atlantic: Argentina (Río de La Plata, Buenos Aires); local name: "marsopa de anteojos"].—Hamilton, 1941, Discovery Rep., no. 21 [S. Atlantic: South Georgia; Falklands; Argentina (Río Santiago); external and osteological characters].—Hamilton, 1952, Comun. Zool. Mus. Hist. Nat. Montevideo, 4(66): 4 [S. Atlantic: Falklands].—Norris and McFarland, 1961, Journ. Mammal., 39: 32, 34, pls. 1–3D (skull) [distribution; characters; comparisons; stornii Marelli a synonym].

Phocaena Stornii Marelli, 1922, Anal. Soc. Cient. Argentina, Buenos Aires, 94: 229, figs. 1–3, 5 (skull), fig. 4 (teeth) [S. Atlantic: Argentina (type locality: Tierra del Fuego); type [a skull only in the Buenos Aires Museum].

Type: Female, entire specimen preserved in spirits, Museo Argentino de Ciencias Naturales, Buenos Aires.

Type locality: Punta Colares, near Quilmes, Río de La Plata, Buenos Aires, Argentina.

DISTRIBUTION: South Atlantic from the Río de La Plata (34°40′ S.), Argentina, to Tierra del Fuego, the Falklands, and South Georgia. Should *obtusata* Philippi prove to be the same, the range would include the coast of Chile from 36° southward.

# Phocoena phocoena Linnaeus

[Delphinus] phocana Linnaeus, 1758, Syst. Nat., ed. 10, 1:77.

D[elphinus] phocæna [sic] Müller, 1776, Zoologiae Danicae prodromus, p. 7 [N. Atlantic: Norway; Greenland].

Delphinus phocæna [sic], Lacépède, 1804, Hist. Nat. Cétacées, p. 287, pl. 13, fig. 2 (animal), pl. 14, fig. 2 (skull), pl. 15, fig. 3 (animal) [characters].

D[elphinus] (Phocæna [sic]) phocæna [sic], Gray, 1828, Spicilegia zoologica,1: 2 [classification].

Phocena [sic] phocena [sic], Gray, 1821, London Medical Repository, 15: 310 [misprint or emendation for Phocαna phocαna Linnaeus].

Phocaena [sic] phocaena [sic], Kleinenberg, 1956, Mammals of the Black Sea and Sea of Azov [in Russian], p. 84 [U.S.S.R. (Black Sea); relicta a synonym].—Tomilin, 1962, Cetacea of the U.S.S.R., Fauna U.S.S.R., 79: 20, fig. 70 (animal), fig. 71 (skull) [distribution; biology].

Phocoena phocoena, Norris and McFarland, 1958, Journ. Mammal., 39: 24, pls. 1–3, fig. C (skull), pl. 4 (skull) [N. Pacific: U.S.A. (Point Barrow, Alaska, to San Pedro Channel, southern California); characters; comparisons; vomerina Gill a synonym].—Norris and Prescott, 1961, Univ. California Publ. Zool., 63: 348 [distribution; behavior; morphology].

Ph[ocaena] ph[ocaena] phocaena, Tomilin, 1962, Cetacea of the U.S.S.R., 79: 203 [N. Atlantic].

[?] D[elphinus] Phocaena fuscus Kerr, 1792, Animal Kingdom, p. 363 [N. Atlantic: Canada (St. Lawrence River); name based on the "poursille" of Bomare, 1768, Dict. Hist. Nat., article: "Baleine"].

Delphinus ventricosus Lacépède, 1804, Hist. Nat. Cétacées, pp. xliii, 311 [N. Atlantic: England (type locality: River Thames); name based on the "lesser Grampus" of Hunter, 1787, Philos. Trans. Roy. Soc. London, 77(1): 373, pl. 17].

Phocæna [sic] communis Lesson, 1827, Man. Mamm., p. 413 [new name for Delphinus phocaena of authors].

Phocæna [sic] tuberculifera Gray, 1865, Proc. Zool. Soc. London, 1865: 320 [N. Atlantic: England (type locality: Margate); type skin (in spirits) and skeleton, British Museum, no. 365b-65.12.8.43].

Phocæna [sic] vomerina Gill, 1865, Proc. Acad. Nat. Sci. Philadelphia, 17: 178 [N. Pacific: U.S.A. (type locality: Puget Sound, Washington); type rostrum and part of braincase, U.S. National Museum, no. 4149; collected by C. B. R. Kennerly and cataloged July 1860].

Phocaena [sic] phocaena vomerina, Tomilin, 1957, Mammals of eastern Europe and northern Asia, 9: 703 [classification].

*Phocoena vomerina*, Hall and Kelson, 1959, Mammals of North America, p. 831, fig. (animal), fig. 457 (skull) [characters; distribution].

Phocæna [sic] brachycium Cope, 1865, Proc. Acad. Nat. Sci. Philadelphia, p. 279 [N. Atlantic: U.S.A. (type locality: Salem Harbor, Massachussetts); cotypes, two skulls in Museum of Essex Institute, Salem, Massachussetts, now probably in the U.S. National Museum].—Cope 1876, Proc. Acad. Nat. Sci. Philadelphia, p. 134 [regarded as a synonym of "P. americana Agass[iz], fide Verrill; not described"].

Phocæna [sic] brachcium [sic], Hall and Kelson, 1959, Mammals of North America, p. 831 [misprint for brachycium Cope].

Phocæna [sic] americana J. A. Allen, 1869, Mammals of Massachussetts, Bull. Mus. Comp. Zool., p. 206 [N. Atlantic: U.S.A. (type locality: Massachussetts); name attributed to Agassiz [not described], with P. brachycium Cope, in synonymy].

Phocana [sic] lineata Cope, 1876, Proc. Acad. Nat. Sci. Philadelphia, pp. 134, 135 [N. Atlantic: U.S.A. (type locality: "Harbour of New York" (p. 134), Eastport, Maine (p. 136)); lectotype cast and skull of New York

Harbor specimen U.S. National Museum, no.  $\frac{12481}{16255}$  (cf. Poole and

Schantz, 1942, Bull. U.S. Nat. Mus., 178: 110)].

Phocana Rondeletii Giglioli, 1870, Note intorno alla distribuzione della fauna vertebrata nell' oceane, R. Magenta, 1865–68, p. 78 [N. Atlantic: European coast; name borrowed from Willoughby, 1686, Hist. Pisc., 4: 31].

Phocæna [sic] relicta Abel, 1905, Jahrb. K. K. Geol. Reichsanstalt, Wien, 55: 387, 388, figs. 3, 4 (animal) [U.S.S.R. (type locality: Crimean coast, Black Sea); type, female skeleton and cotype skeleton in Biological Station, Academy of Science, Sebastopol, U.S.S.R.].

Phocæna [sic] phocaena [sic] relicta, Zalkin, 1940, Bull. Soc. Nat. Moscow, Sec. Biol., n. s., 49(1): 61 [U.S.S.R. (Black Sea); biology].

Phocaena [sic] phocaena [sic] var. acuminata Van Deinse, 1935, Levende Natuur, Amsterdam, 40: 113 (name, p. 115), figs. 1, 2 (animal), fig. 3 (mandible), figs. 4–6 (skin) [N. Atlantic: Netherlands (type locality: Walcheren, Dishoeck, Zoutelande); type male stranded Dec. 14, 1934].—Van Deinse, 1946, Zool. Med. Leiden, 26: 158 [N. Atlantic: Netherlands; characters].

Phocaena [sic] phocoena acuminata conidens Van Deinse, 1946, Zool. Med. Leiden, 26: 158, 159 [N. Atlantic: Netherlands (type locality: Walcheren, Zouteland); type, male, stranded Dec. 14, 1934, skeleton originally in Rotterdam Natural History Museum, now in Leiden Museum].

Type: None in existence, name based on the common porpoise of authors.

Type locality: "Oceano Europaeo Balthico."

DISTRIBUTION: In Arctic and North Atlantic Oceans: from Barents Sea, Iceland, and Davis Strait to Black, Azov, and Mediterranean Seas and off Sénégal (Fraser, 1958, Bull. Inst. Français Afrique Noire, 20A: 276) on the east, to Delaware on the west; in the North Pacific: from Point Barrow, Alaska, to Banderas, Jaliso, Mexico, on the east, and to Japanese waters on the west.

#### Genus PHOCOENOIDES Andrews

Phocanoides Andrews, 1911, Bull. Amer. Mus. Nat. Hist., 30: 31.

Phocaenoides Winge, 1942, Interrelat. Mamm. Gen., 3: 297 [characters; classification].

Type species: *Phocoenoides truei* (=*Phocoena dalli* True), by original designation.

DISTRIBUTION: Northern Pacific from the Bering Sea to northwestern Baja California on the east, eastern Siberia and Japan on the west.

#### Phocoenoides dalli True

Phocana dalli True, 1885, Proc. U.S. Nat. Mus., 8: 95.

Phocoenoides dalli, Wilke, Taniwaki, Kuroda, 1953, Journ. Mamm., 34: 488 [N. Pacific: Japan (39° N.); "hunting"; characters; comparisons].—Hubbs, 1960, Syst. Zool., 9: 144 [N. Pacific: Mexico (northwestern Baja California, southern limit of range)].—Norris and Prescott, 1961, Univ. California Publ. Zool., 63: 296, 351 [N. Pacific: U.S.A. (Orange County, California); seasonal movements; behavior; morphology; reproduction; locomotion; parasites].—Scheffer and Rice, 1963, U.S. Fish and Wildlife Serv., Spec. Sci. Rep., 431: 5 [intergradation with truei not found].

Phocoenoides dalli dalli, Tomilin, 1957, Mammals of eastern Europe and northern Asia, 9: 681 [N. Pacific: northern race]; 1962, Cetacea of the U.S.S.R., Fauna U.S.S.R., 79: 199 [N. Pacific (confined between 39° and 61°)].

Phocænoides truei Andrews, 1911, Bull. Amer. Mus. Nat. Hist., 30: 32, figs. 1–3 (fins, head), figs. 4–7 (skull), figs. 8–23 (postcranial skeletal parts), pls. 1–2 (animal) [N. Pacific: Japan (type locality: Aikawahama, Rikuzen Province); type, skull and skeleton, American Museum of Natural History, no. 31425; collected June 18, 1910, by R. C. Andrews].—Wilkie, Taniwaki, Kuroda, 1953, Journ. Mamm., 34: 488 [N. Pacific: Japan (38°15′ N.); hunting; characters; regarded as distinct from dalli].

Phocoenoides dalli truei, Tomilin, 1957, Mammals of eastern Europe and northern Asia, 9: 320 [N. Pacific: southern race]; 1962, Cetacea of the U.S.S.R., Fauna U.S.S.R., 79: 199 [N. Pacific (confined between 42° and 43°)].

Phocaena dalli truei, Imaizumi, 1958, Nat. Sci. Mus. Tokyo, 25(5-6): 9 [N. Pacific: Japan].

Type: Male, skull only, U.S. National Museum, no. 21762; collected Aug. 13, 1873, by W. H. Dall.

Type locality: Strait west of Adakh (=Adak), Aleutian Islands, Alaska. Distribution: The same as for the genus.

#### Genus NEOPHOCAENA Palmer

Neomeris Gray, 1846, Zoology of the voyage of H.M.S. Erebus and Terror, 1(Mammalia): 30 [type species: Neomeris Phocaenoides (=Delphinus phocaenoides Cuvier), by monotypy; name preoccupied by Neomeris Costa, 1844, a genus of Vermes].—Flower, 1884, Proc. Zool. Soc. London, 1883: 506 [characters].—True, 1889, Bull. U.S. Nat. Mus., 36: 114 [review].—Thomas, 1925, Ann. Mag. Nat. Hist., (9), 16: 655 [generic name valid; synonyms: Meomeris Gray, 1847: Nomeris Coues, 1890: Neophocaena Palmer, 1899].—Fraser and Purves, 1960, Bull. Brit. Mus., (Nat. Hist.), Zool., 7: 93, 104, fig. 26 (table) [auditory system classification].

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Meomeris Gray, 1847, List Ostéol. Spec. Brit. Mus., pp. xii, 36 [misprint for Neomeris Gray, an incorrect subsequent spelling without status in nomenclature (cf. Art. 33, International Code Zoological Nomenclature].—Thomas, 1922, Ann. Mag. Nat. Hist., (9), 9: 676 ["valid" generic name, substituted for Neomeris Gray, preoccupied; Neophocaena Palmer a synonym].—G. M. Allen, 1923, Bull. Mus. Comp. Zool., 65: 233 [history; nomenclature; taxonomy; morphology].—Hershkovitz, 1961, Fieldiana, 39: 552 [nomenclature].

Nomeris Coues, 1890, Century Dict., 4: 4449 [misprint for Neomeris in synonymy of Phocoena phocaenoides, an incorrect subsequent spelling without status in nomenclature (cf. Art. 36, International Code Zoological Nomenclature)].

Neophocaena Palmer, 1899, Proc. Biol. Soc. Washington, 13: 23 [new name for Neomeris Gray believed to be preoccupied by Neomeris Lamoureux, 1816, regarded as a polyp but which appears to be an alga (cf. Thomas, 1925, Ann. Mag. Nat. Hist., (9), 16: 655)].

Phaacana G. M. Allen, 1923, Bull. Mus. Comp. Zool., 65: 239 [misprint for Phocana in combination with phocaenoides; name attributed to Robinson and Kloss, in synonymy of Meomeris phocaenoides].

Type species: Neomeris Phocaenoides Gray (= Delphinus phocaenoides Cuvier), by monotypy.

DISTRIBUTION: Indian Ocean: from South Africa to Bay of Bengal; South Pacific: from South China Sea (Sarawak), Chinese coast (Yangtzekiang River from mouth to 1000 miles inland, and in Tungting Lake) to coast of southern Japan. Tomilin (1962, Cetacea of the U.S.S.R. Fauna U.S.S.R., 79: 194) adds Korea and the peripheral Malacca and Persian Gulf to the range of the genus. He mentions that the species may be a possible visitor in the Sea of Japan and southern part of the Kuriles.

# Neophocaena phocaenoides G. Cuvier

D[elphinus] phocænoides G. Cuvier, 1829, Regni animale, 1: 291 (in text). Neomeris Phocænoides, Gray, 1846, Zoology of the voyage of H. M. S. Erebus and Terror, 1(Mammalia): 30 [classification].

Neomeris phocenoides, True, 1889, Bull. U.S. Nat. Mus., 36: 114, 178, pl. 34, fig. 1 (animal), fig. 2 (skull) [characters; cotypes in Paris Museum (skull from Malabar=lectotype; skull from Cape of Good Hope); skeleton of type of melas Temminck in Leiden Museum].—Fraser, 1935, Nat. Hist. Mag., 5: 90, fig. p. 91 (animal) [China: Yangtse River, 60 miles above Hankow].

Neomeris phocaenoides, Gibson-Hill, 1950, Sarawak Mus. Journ., 5: 294 [N. Pacific: Sarawak; Indian: South Africa].—Romer, 1955, Mem. Hong Kong Biol. Circle, 3: 2, 4, fig. p. 2 (animal) [N. Pacific: Hong Kong; measurements; color change in death].

Meomeris phocænoides, Gray, 1847, List osteological specimens Brit. Mus., p. 36 [listed].—G. M. Allen, 1923, Bull. Mus. Comp. Zool., 65: 233,

pl. 1 (external characters of freshly killed animal), pl. 2 (skull), pl. 3 (sternum, ear bones, ribs, vertebrae, carpus) [China (Tung Ting Lake, Hunan; Yangtse River at Kiang-yin, Kiang-su); history; nomenclature; taxonomy; distribution; anatomy; osteology; synonyms: molagan Owen, melas Temminck, kurrachiensis Murray].

[Neophocaena] phocænoïdes, Trouessart, 1904, Cat. Mamm., Suppl., p. 768 [classification].

Delphinapterus molagan Owen, 1866, Trans. Zool. Soc. London, 6:24 [Indian: India (type locality: Madras); description based on a drawing of the "molagan" of the Tamil fishermen].

Neomeris kurrachiensis Murray, 1884, Ann. Mag. Nat. Hist., 13: 351 [Indian: Pakistan (type locality: Kurrachee (Karachi), Arabian Sea); description based on stranded animal and skull; type presumably in the Karachi Museum].

Delphinus melas, Temminck (not Traill), 1841, Fauna Japonica, Mammiferes marins, p. 14, pl. 25 (animal, rostrum), pl. 26 (skull, pectoral limb bones, sternum, vertebrae) [N. Pacific: Japan (type locality); type skeleton in Leiden Museum].

Neomeris melas Giglioli (cf. Temminck or Schlegel), 1870, Note intorno alla distribuzione della fauna vertebrata nell'oceano., Viaggio . . . R. P. Magenta, p. 78 [N. Pacific: 8°43′ N., 107°10′ E. (off Indochina)]. Nomerus [sic] melus [sic], Coues, 1890, Century Dict., 4: 4449 [in synonymy of Phocoena phocaenoides Cuvier].

Neophocæna sp., Lydekker, 1909, Proc. Zool. Soc. London, 1908: 806, pl. 44, fig. 2 (animal) [characters].

Type: Skull, Museum National d'Histoire Naturelle, Paris, no. 3086; collected by M. Dussumier.

Type Locality: Cape of Good Hope, South Africa.

DISTRIBUTION: The same as for the genus.

Remarks: The species was described in 1829 on the basis of a skull "découvert au Cap." In erecting the genus Neomeris, Gray (1846, Zoology . . . Erebus and Terror, 1: 30) remarked that, in addition to the type from the Cape of Good Hope, "there is in the Mus. Paris a skull of 'D. Phocanoides' brought from Malabar by Dussumier in 1837" [sic]. True (1889, Bull. U.S. Nat. Mus., 36: 114) examined two skulls in the Paris Museum, as follows: "No. A. 3087 skull, Coast of Malabar. Dussumier. Type D. phocanoides Cuvier. No. A. 3086 skull, Cape of Good Hope." On page 179 of the same work, however, True lists the South African skull no. A. 3086 as type and gives its measurements. In his review of the genus under the name Meomeris, G. M. Allen (1923, Bull. Mus. Comp. Zool., 65: 233, 235, 241) marshalled long lines of negative data to prove that the "supposed occurrence [of D. phocanoides] at the Cape of Good Hope [is] almost certainly erroneous; so that as yet there is no evidence of its presence in African waters." It appears now, however, that the animal does occur off the coast of South Africa, as reported by Gibson-Hill (1950,

Sarawak Mus. Journ., 5: 294). In view of the equivocal arguments for rejecting the Cape of Good Hope as type locality and the strong evidence in favor of accepting it, I retain Cuvier's original designation of the type and type locality. Tomilin (1962, Cetacea of the U.S.S.R., Fauna U.S.S.R., 79:194) includes Korea and adds the peripheral Malacca and Persian Gulf to the range of the genus. He mentions that the species may be a possible visitor in the Sea of Japan and southern parts of the Kuriles.

# Family MONODONTIDAE

### Genus DELPHINAPTERUS Lacépède

Delphinapterus Lacépède, 1804, Hist. Nat. Cétacées, pp. xli, 243 [included species: Delphinapterus beluga Lacépède (=Delphinus leucas Pallas), Delphinapterus senedetta Lacépède].—Sonnini (Lacépède), 1804, Hist. Nat. Cétacées, pp. 39, 347 [included species: D. beluga (type, i.e., "première espèce"=Delphinus leucas Pallas, 1776), D. senedetta Lacépède (unidentifiable, possibly mythical)].—Flower, 1884, Proc. Zool. Soc. London, 1883: 505 [characters].—Kellogg, 1928, Quart. Rev. Biol., 3: 33 [history; relationship].—Winge, 1942, Interrelat. Mamm. Gen., 3: 250, 285, 291 [characters; classification].—Kleinenberg, Yablokov, Belkovich, Tarasevich, 1964, Academy Press, "Nauka," Moscow, 466 pp., illustrated [exhaustive monographic treatment].

Beluga Rafinesque, 1815, Analyse de la Nature, p. 60 [new name for Delphinapterus Lacépède].—Gray, 1828, Spicilegia zoologica, 1: 2 [subgenus of Delphinus; type species: D. leucas Pallas, by monotypy; name

preoccupied by Beluga Gmelin, 1774, a genus of fish].

Delphinaptera Bowdich, 1821, Anal. Class. Mamm., p. 86 [emendation of

Delphinapterus Lacépède].

Delphinaster Gray, 1821, London Medical Repository, 15: 310 [misprint for Delphinapterus Lacépède; included species: Delphinus leucaster (sic) (=D. leucas Pallas)].

Delphinopterus Cuvier, 1829, Dict. Sci. Nat., 59: 517 [misprint for Delphinapterus Lacépède].

Delphis Wagler, 1830, Nat. Syst. Amphibien, p. 34 [type species: Delphinus leucas Pallas, by monotypy].

Argocetus Gloger, 1842, Hand-und Hilfsbuch der Naturgeschichte 1: xxxiv, 169 [type species: the "beluge," by monotypy].

Type species: Delphinapterus beluga Lacépède (=Delphinus leucas Pallas), designation by Sonnini in Lacépède (1804, Hist. Nat. cétacées, p. 39).

DISTRIBUTION: Arctic seas of North America and Eurasia from 81° N. southward to Japan and Alaska in the Pacific, to the British Isles and Bay of Biscay, France, in the eastern Atlantic, Massachusetts in the western Atlantic.

### Delphinapterus leucas Pallas

[?] Physeter Katadon Müller, 1773, Linné Vollst. Nat., 1: 497 ["Der Weissfisch"; name based on the whales stranded on the Orkney Islands recorded by pre-Linnaean authors (cf. Artedi, 1738, Syn. Nom. piscium, p. 106)].

Delphinus leucas Pallas, 1776, Reise durch verschiedene Provinzen des Russichen Reichs, 3(1): 85, ftn.

Delphinapterus leucas, Flower, 1885, List Cetacea Brit. Mus., pp. 14–15 [Delphinus (Delphinapterus) kingii Gray a synonym; type skull of young individual, British Museum, no. 364a, "of corresponding age to and closely resembling the last" (a skull from Greenland)].—Hector, 1885, Trans. New Zealand Inst., 17: 209 [kingii Gray a synonym; doubtfully present in South Pacific].—Oliver, 1922, Proc. Zool. Soc. London, 1922: 557 [New Zealand; "beluga" of authors=Tursiops truncatus Montagu].—Niort, 1949, Bull. Soc. Zool. France, Paris, 74: 244 [N. Atlantic: France (lower Loire River)].—U.S. Navy Oceanographic Office, 1958, Oceanographic atlas of the polar seas, figs. 115–126 (map) [movements and concentrations].—Fish and Mowbray, 1962, Journ. Marine Res., Yale Univ., 20(2): 149 [sound production].—Tomilin, 1962, Cetacea of the U.S.S.R., Fauna U.S.S.R., 79: 138, fig. 42 (animal), fig. 43 (skull) [U.S.S.R. (Barents to Bering and Okhotsk and Japan Seas); concentrations; movements; natural history].

B[alaena] albicans Müller, 1776, Zoologiae Danicae prodromus, p. 7.

Delphinus albicans, Fabricius, 1780, Fauna Groenlandica, p. 50 [name based on the Icelanders' "hrafu-reydur" or "huitingar" and Greenlanders' "killelluak"; N. Atlantic: Greenland (type locality)].

Ph[yseter] macrocephalus albicans, Kerr, 1792, Animal kingdom, p. 361 [the white fish or white whale of authors].

Catodon albicans, Lacépède, 1804, Hist. Nat. Cétacées, pp. xxxix, 218 [characters; classification].

Delphinus albians [sic], Nilsson, 1820, Skandinavisk fauna, 1: 403 [N. Atlantic; characters; name a misprint for albicans Fabricius].

Catodon candicans Lesson, 1828, Complément des oeuvres de Buffon, p. 192, ftn. [in synonymy of Delphinus leucas Pallas; name a lapsus for Catodon albicans Lacépède (=Balaena albicans Müller)].

D[elphinus] Phocaena albus Kerr, 1792, Animal kingdom, p. 363 [N. Atlantic: Canada (type locality: St. Lawrence River); name based on the "moine de mer" of Bomare (Dict. Hist. Nat., entry: "Baleine")].

Delphinapterus beluga Lacépède, 1804, Hist. Nat. Cétacées, pp. xli. 243 [type locality: Arctic seas and the North Atlantic Ocean, particularly Davis Strait].—Sonnini (Lacépède), 1804, Hist. Nat. Cétacées, pp. 39, 347 [characters].

Delphinus leucaster [sic], Gray, 1821, London Medical Repository, 15: 310 [evidently a misprint for D. leucas Pallas].

Delphinus canadensis Desmarest, 1822, Mammalogie, 2: 516 [N. Atlantic: Canada (type locality: seas of Canada)].—Gray, 1866, Cat. seals and whales Brit. Mus., p. 309 [history of the "dauphin blanc du Canada" of Duhamel].—Gervais, in Van Bénéden and Gervais, 1880, Ostéographie des Cétacés, p. 468 [regarded as a synonym of Inia geoffrensis].—True, 1889, Bull. U.S. Nat. Mus., 36: 146, 148 [treated as a synonym of Delphinapterus leucas but regarded as not certainly identifiable].

Inia canadensis, Gray, 1846, Zoology of the voyage of H. M. S. Erebus and Terror, 1(Mammalia): 45, pl. 5, fig. 1 (animal) [classification of

Duhamel's "dauphin blanc du Canada"].

Beluga canadensis, J. A. Allen, 1869, Bull. Mus. Comp. Zool., 1(8): 206

[N. Atlantic: U.S.A. (Provincetown, Massachusetts)].

Delphinus (Delphinapterus?) kingii Gray, 1827, Philos. Mag. or Ann., (2), 2(2): 375 [type, a skull only, "brought to this country [England] and presented to the [British] Museum by Capt. P. P. King, R. N., when he returned from his survey of the coast of New Holland" [Australia]].—True, 1889, Bull. U.S. Nat. Mus., 36: 146, 147 [New Holland locality regarded as erroneous; type skull agrees with Alaskan beluga].

Beluga Kingii, Gray, 1846, Zoology of the voyage of H. M. S. Erebus and Terror, 1(Mammalia): 30, pl. 7 (skull) [characters]; 1866, Cat. seals and whales Brit. Mus., p. 309 [characters].—Hector, 1873, Ann. Mag. Nat. Hist., (4), 11: 105 [S. Pacific: part, not skull (= Tursiops

truncatus)].

Delphinapterus kingi [sic], Ogilby, 1893, Catalogue of Australian mammals,

Australian Mus., Sydney, 16: 73 [listed].

Beluga borealis Lesson, 1828, Complément des oeuvres de Buffon, Cétacés, pp. 440, 192 [new name for *Delphinus leucas* Pallas; characters; habits; distribution].

Beluga glacialis Lesson, 1828, Complément des oeuvres de Buffon, Cétacés, p. 194, pl. 3, fig. 2 (animal with name in caption) [N. Atlantic: Scot-

land (type locality: Firth of Forth)].

C[atodon] Sibbaldi Fleming, 1828, History of British mammals, p. 29 [N. Atlantic: Great Britian (type locality: Kairston, Orkney Island); name based on a gam of belugas recorded by Sibbald (1692, Phalainologia, p. 24)].

Beluga Catodon Gray, 1846, Zoology of the voyage of H. M. S. Erebus and Terror, 1(Mammalia): 29 [N. Atlantic: Greenland (type locality);

type a skull, British Museum (Natural History)].

Delphinapterus Catadon, Goode, 1884, Fisheries and fishing industries of U.S., Sect. 1, 1: 18 [N. Atlantic: U.S.A. (Yarmouth River, Massachussetts)].

Beluga rhinodon Cope, 1865, Proc. Acad. Nat. Sci. Philadelphia, 17: 274, 278 [N. Atlantic: Greenland (type locality: Upernavik); type a

skeleton, Academy of Natural Sciences, Philadelphia].

Beluga declivis Cope, 1865, Proc. Acad. Nat. Sci. Philadelphia, 17: 274,278 [N. Atlantic (type locality: probably Greenland); type a skeleton in Academy of Natural Sciences, Philadelphia].

Beluga concreta Cope, 1865, Proc. Acad. Nat. Sci. Philadelphia, 17: 278 [N. Atlantic (type locality: probably Greenland); type a skeleton in the Museum of Comparative Zoology, presented by Dr. E. K. Kane].

Beluga angustata Cope, 1866, Proc. Acad. Nat. Sci. Philadelphia, 18: 293 [N. Atlantic: Greenland (type locality: Upernavik); type skeleton "deposited by the Smithsonian Institution in the Museum of Columbia College, Washington"].

Delphinapterus freimani Klumov, 1935, Buill. rybnogo khoziaistvo S.S.S.R., Moscow, 7: 26–28, fig. 2 [work not seen; Arctic: U.S.S.R. (type locality: White or Barents Sea)].

Delphinapterus dorofeevi Barabash and Klumov, 1935, Buill. rybnogo khoziaistvo S.S.S.R., Moscow, 11: 24 [work not seen; N. Pacific: Siberia (type locality: Okhotsk Sea)].

D[elphinapterus] l[eucas] dorofeevi, Tomilin, 1962, Cetacea of the U.S.S.R., Fauna U.S.S.R., 79: 140 [recognized as valid].

Delphinapterus leucas maris-albi Ostroumov, 1935, Fish Industry of the North, U.S.S.R., no. 11 [Arctic: U.S.S.R. (type locality: Gulf of Onega, White Sea)].

Type: None preserved, name based on freshly harpooned animals.

Type locality: Mouth of Ob River, northeastern Siberia, U.S.S.R.

DISTRIBUTION: The same as for the genus.

Remarks: The type of *Delphinus* (*Delphinapterus*) kingii Gray was presented to the British Museum by Captain King on his return from surveying the Australian coast. Nothing in the original description indicates how or where Captain King secured his specimen and there is no mention of a beluga in his account of the voyage (1826, Narrative of a survey of the intertropical and western coasts of Australia between the years 1818 and 1822, London). In the appendix to the above work, Gray (2:415) lists all specimens of mammals brought back by Captain King. Only one cetacean, "Delphinorhynchus Pernettensis?" (=Stenella pernettyi), is mentioned.

#### Genus MONODON Linnaeus

Monodon Linnaeus, 1758, Syst. Nat., ed. 10, 1: 75.—Kellogg, 1928,
Quart. Rev. Biol., 3: 33 et seq. [history; relationship].—Winge, 1942,
Interrelat. Mamm. Gen., 3: 250, 286, 291 [characters; classification].
Ceratodon Brünnich, 1772, Zoologiae Fundamenta, p. 48 [substitute name for Monodon Linnaeus].—Illiger, 1811, Prodromus systematis

mammalium . . ., p. 142 [type species: *Monodon monoceros* Linnaeus by monotypy].

Diodon Storr, 1780, Prodromus methodi mammalium . . ., p. 42, tab. C [new name for Monodon Linnaeus; name preoccupied by Diodon Linnaeus, a genus of fish].

Narwalus Lacépède, 1804, Hist. Nat. Cétacées, p. xxxvii [included species: N. vulgaris (type by tautonomy=Monodon monoceros Linnaeus), N. microcephalus (=Monodon monoceros Linnaeus), N. andersonianus (=Monodon monoceros Linnaeus)].

Narwhalus Duméril, 1806, Zool. Analytique, p. 28 [emendation of Narwalus Lacépède].—Fischer, 1829, Syn. Mamm., p. 516, ftn.

Narhvalus Fischer, 1814, Zoognosia, Tab. Syn., p. 662 [misspelling of Narwalus Lacépède].

Tachynices Brookes, 1828, Cat. Anat. Zool. Mus. Joshua Brookes, London, p. 40 [type species: Tachynices megacephalus Brookes (=Monodon monoceros Linn.)].

Type species: Monodon monoceros Linnaeus by monotypy.

DISTRIBUTION: Arctic seas south to the British Isles, the Netherlands, and Labrador in the Atlantic and to the Bering Sea in the Pacific.

#### Monodon monoceros Linnaeus

Monodon monoceros Linnaeus, 1758, Syst. Nat., ed. 10, 1: 75.—Kellogg, 1928, Quart. Rev. Biol., p. 202, fig. 23 (auditory apparatus) [characters].—Van Deinse, 1931, De fossiele en recente Cetacea van Nederland, p. 187 [N. Atlantic: Netherlands].—Guest, Buckley and Manville, 1960, Journ. Mammal., 41: 250, pl. 1 (animal) [N. Pacific: U.S.A. (Kiwalick Bay, Alaska, 66° N., 162° W.; other Alaskan records compiled)].—Tomilin, 1962, Cetacea of the U.S.S.R., Fauna U.S.S.R., 79: 144, fig. 44 (animal), fig. 45 (skull) [characters; distribution; habits].

Monodon Narhval [sic], Borowski, 1781, Gemeinnüzzige Naturgeschichte des Thierreichs, 2: 8 [emendation of narwhal Blumenbach].

Monodon Narwhal Blumenbach, 1788, Handb. Naturg., ed. 3, 1: 144; Atlas, pl. 44 [new name for Monodon monoceros Linnaeus (see also Blumenbach, earlier editions, op. cit.)].

Narwalus vulgaris Lacépède, 1804, Hist. Nat. Cétacées, pp. xxxvii, 142, pl. 4, fig. 3 (animal) [new name for Monodon monoceros Linnaeus].

Narwalus microcephalus Lacépède, 1804, Hist. Nat. Cétacées, pp. xxxviii, 159, pl. 5, fig. 2 (animal) [N. Atlantic: U.S.A. (type locality: near Boston, Massachusetts, where the species is not known to occur; Greenland (Davis Strait); name based on a drawing after life, made in February 1800 by M. W. Brand].

Narwalus Andersonianus Lacépède, 1804, Hist. Nat. Cétacées, pp. xxxviii,

163, pl. 7, fig. 1 (skull) [type locality unknown; name based on tusks seen by Anderson in Hamburg].

Ceratodon monodon Pallas, 1811, Zoogeogr. Rosso-Asiatica, p. 295 [new name for Monodon monoceros Linnaeus].

Tachynices megacephalus Brookes, 1828, Cat. Anat. Zool. Mus. Joshua Brookes, London, p. 40 [new name for Monodon monoceros].

Type: None in existence; name based on the narwhal of whalers and authors.

Type locality: Northern seas of Europe and America.

DISTRIBUTION: The same as for the genus.

# Family PHYSETERIDAE

# Genus KOGIA Gray

Kogia Gray, 1846, Zoology of the voyage of H. M. S. Erebus and Terror, 1(Mammalia): 22.—Gill, 1871, American Nat., 4: 729 [characters; comparisons].—Kellogg, 1928, Quart. Rev. Biol., 3: 33 et seq. [history; relationship].

Euphysetes Wall, 1851, Mem. Australian Mus., 1: 46 (reprint) [type species: Euphysetes Grayii (=Physeter breviceps Blainville), by monotypy].

Callignathus Gill, 1871, American Nat., 4: 737 [type species: Physeter simus Owen, by original designation; name preoccupied by Callignathus Agassiz, 1846, a genus of insects].

Cogia Wallace, 1876, Geographical distribution of animals, 2: 208 [emendation of Kogia Gray; name preoccupied by Cogia Butler, 1870, a genus of Lepidoptera].

"Cogia" [sic] Winge, 1942, Interrelat. Mamm. Gen., 3: 259 [characters; classification].

Callignathula Strand, 1926, Arch. Naturg., 92(A8): 61 [substitute name for Callignathus Gill, preoccupied].

Gallignathus Tomilin, 1957, Mammals of eastern Europe and northern Siberia, 9(Cetacea): 418 [misprint for Callignathus Gill, in the combination Gallignathus simus Gill].

Type species: Kogia breviceps (=Physeter breviceps Blainville), by monotypy.

DISTRIBUTION: In eastern Atlantic: coasts of the Netherlands, France, and South Africa; in western Atlantic: from Nova Scotia to Florida and Texas; in eastern Pacific: from Washington to Mazatlán, Mexico, and recorded from southern Peru; in western Pacific: Japanese waters, East and South China Seas, Australia, and New Zealand; in central Pacific: Hawaii; in Indian Ocean: from Australia to South Africa.

# Kogia breviceps Blainville

Physeter breviceps Blainville, 1838, Ann. françaises étrangères Anat. Phys., 2: 337, pl. 10 (skull).

Kogia breviceps, Gray, 1846, Zoology of the voyage of H.M.S. Erebus and Terror, 1(Mammalia): 22.—Beddard, 1900, Book of whales, p. 188 [characters; taxonomy].—Murphy, 1925, Bird islands of Peru, p. 255 [S. Pacific: Peru (Bahia de Independencia, Ica)].—Kellogg, 1928, Quart. Rev. Biol., 3: 180 [characters; history; relationship].— Iredale and Troughton, 1934, Mem. Australian Mus., 6: 59 [S. Pacific: Australia; Indian: Australia].—Slijper, 1937, Die Cetaceen, Vergleichend-anatomisch und systematisch (in text) [comparative anatomy; embryology; systematics; phylogeny].—Hirasaka, 1937, Mem. Fac. Sci. Agric. Taihoku Imp. Univ., 14(5, Zool. 5): 117 [work not seen; S. Pacific: Peru (Independencia, Ica, 14° S.)].-Fraser, in Norman and Fraser, 1938, Giant fishes, whales and dolphins, p. 267, fig. 68 (animal) [characters; habits; distribution].—Van Deinse, 1931, De fossiele en recente Cetacea van Nederland, p. 187 [N. Atlantic: Netherlands].-Kellogg, 1940, Nat. Geogr. Mag., 77(1): 69, pl. 11 (animal) [characters; distribution].—G. M. Allen, 1941, Field Mus. Nat. Hist., Zool. Ser., 27: 17, fig. 1 (foetus), fig. 2 (dorsal fin), fig. 3 (pectoral limb), fig. 4 (sternum) [characters; taxonomy; food; reproduction; distribution (including Murphy specimen): from Independencia Bay, Peru].—Fraser and Purves, 1960, Bull. Brit. Mus. (Nat. Hist.), Zool., 7: 16 et seq., pl. 16 (skull) [auditory system].— Dell, 1960, Rec. Dominion Mus., Wellington, 3(3): 229 [distributional records compiled].—Harrison, 1960, Malayan Nat. Journ., 14: 87 [N. Pacific: Sarawak].—Hale, 1962, Rec. S. Australian Mus., 14(2): 197, figs. 1-7 (fins, pectoral limbs), figs. 8-10 (heads), figs. 11-12 (dorsal fins), pls. 1, 2 (skull), pl. 3 (tongue bones), pl. 4 (sternum).

C[ogia] breviceps, Benham, 1901, Proc. Zool. Soc. London, 1901: 278, pl. 25 (larynx) [S. Pacific: New Zealand (Otago)].

Kogia brevirostris [sic], Gray, 1865, Proc. Zool. Soc. London, 1865: 529 [lapsus for breviceps Blainville].

Euphysetes Grayii Wall, 1851, Mem. Australian Mus., 1: 37 (reprint), pl. 2 (skeleton) [S. Pacific: Australia (type locality: Maroubra Beach, New South Wales); type skeleton in the Australian Museum, Sydney; osteology].—Gray, 1866, Cat. seals and whales Brit. Mus., p. 218 [original description quoted].

Kogia Grayi, Gill, 1871, American Nat., 4: 738 [classification].

[Kogia] Greyi [sic], Trouessart, 1898, Cat. Mamm., p. 1057 [listed].

Euphysetes macleayi Krefft, 1866, Proc. Zool. Soc. London, 1865: 708, 713, fig. 1 (animal), fig. 2 (snout), figs. 3–5 (skull), fig. 6 (skeleton) [S. Pacific: Australia (type locality: Manly Beach, New South Wales); type a skeleton in Australian Museum, Sydney].

Kogia Macleayi, Gill, 1871, American Nat., 4: 738 [classification].

Physeter (Euphysetes) simus Owen, 1866, Trans. Zool. Soc. London, 6(1): 30, pl. 10 (animal ♀), pl. 11 (animal ♂, skeleton), pls. 12–14 (skull)

[Indian: India (type locality: Waltair, Madras); description based on the cited figures and skull of young Q, Brit. Mus., no. 1474c–73.6.25.2, presented by Sir Walter Elliot].

Callignathus simus, Gill, 1871, American Nat., 4: 740, figs. 168–170 (skull) [characters].

Kogia simus, Yamata, 1954, Sci. Rep. Whales Res. Inst., 9: 37, figs. 3, 11 (animal), fig. 5 (head), figs. 8–10 (vertebrae), fig. 12 (sternum), pl. (skull) [N. Pacific: Taiji, southeast of Osaka, southeastern Japan; regarded as distinct from breviceps].

Kogia Floweri Gill, 1871, American Nat., 4: 738, fig. 162 (left mandible) [N. Pacific: Mexico (type locality: near Mazatlán, Sinaloa); type, a lower jaw and portrait of the entire animal in the U.S. National Museum].

Kogia floweri, Poole and Schantz, 1942, Bull. U.S. Nat. Mus., 173:114 [type history].

Euphysetes pottsi Haast, 1874, Trans. New Zealand Inst., 6(1873): 97, pl. 15 [S. Pacific: New Zealand (type locality: Governor Bay, near Ohinitahi); type skin and skeleton in Canterbury Museum, New Zealand].

Euphisetes [sic] pottsi, Tomilin, 1957, Mammals of eastern Europe and northern Asia, 9(Cetacea): 418 [listed in synonymy of Kogia breviceps].

Kogia goodei True, 1884, Bull. U.S. Nat. Mus., 27: 630 (table), 641 (list) [nomen nudum].—Poole and Schantz, 1942, Bull. U.S. Nat. Mus., 178: 114 [history of "type specimen"].

Type: Skull only, Museum National d'Histoire Naturelle, Paris; collected by M. Verreaux.

Type locality: Cape of Good Hope, South Africa.

DISTRIBUTION: The same as for the genus.

#### Genus PHYSETER Linnaeus

Physeter Linnaeus, 1758, Syst. Nat., ed. 10, 1: 76 [included species: catodon, macrocephalus (=catodon), microps (=catodon), tursio (=catodon)].— Palmer, 1904, Index Gen. Mamm., North Amer. Fauna, 23: 536 [type: Physeter macrocephalus Linnaeus].—Thomas, 1911, Proc. Zool. Soc. London, 1911(2): 157 [type species: Physeter catodon Linnaeus, macrocephalus Linnaeus a junior synonym].—Kellogg, 1928, Quart. Rev. Biol., 3: 33 et seq., 176 [characters; history; relationship].— Boschma, 1938, Temminckia, 3: 151 [characters; teeth; taxonomic and pre-Linnaean history; distribution; strandings; whaling; P. macrocephalus Linnaeus regarded as type species].—Winge, 1942, Interrelat. Mamm. Gen., 3: 260, 286 [characters; classification].

Catodon Linnaeus, 1761, Fauna Suecia, ed. 2, p. 18 [type species: Physeter macrocephalus Linnaeus (=Physeter catodon Linnaeus), by virtual tautonomy].

Phiseter Bonnaterre, 1789, Tabl. Encycl. Math., Cétologie, p. 12 [emendation of Physeter Linnaeus].

Physalus Lacépède, 1804, Hist. Nat. Cétacés, pp. xi, 219 [type species: Physalus cylindricus Bonnaterre, by monotypy].

Physeterus Duméril, 1806, Zool. Analytique, p. 28 [type: "les physeteres"]. Tursio Fleming, 1822, Philosophy of zoology, 2: 211 [included species: T. vulgaris (type, by virtual tautonomy=Physeter tursio Linnaeus), microps (=Physeter microps Linnaeus); the included species are the mythical "high-finned cachalots" regarded as synonyms of Physeter catodon Linnaeus (cf. Thomas, 1911, Proc. Zool. Soc. London, 2: 157)].

Megistosaurus Anonymous, in Harlan, 1828, American Journ. Sci. Arts, 14: 186 [type species: "large bones disenterred at the mouth of the Mississippi River, and exhibited in the city of Baltimore, January 22 [1828] . . . and it has been proposed to construct upon them a new fossil genus to be designated 'Megistosaurus' "; bones identified as those of Physeter macrocephalus (=Physeter catodon Linnaeus)].

Cetus Billberg, 1828, Synopsis faunæ scandinaviæ, p. 39 [type species: C. cylindricus Lacépède (=Physeter catodon) by monotypy].

Meganeuron Gray, 1865, Proc. Zool. Soc. London, 1865: 439 [subgenus of Catodon; type species: Catodon (Meganeuron) Kreffti Gray (=Physeter catodon Linnaeus)]; 1866, Cat. seals and whales Brit. Mus., p. 387 [genus; characters].

Type species: *Physeter macrocephalus* Linnaeus (=*P. catodon* Linnaeus), by subsequent selection (Palmer, 1904, North American Fauna, 23: 536), but for treating *macrocephalus* as a junior synonym of *catodon*, see Remarks below (p. 121).

DISTRIBUTION: All seas from Arctic to Antarctic Oceans.

# Physeter catodon Linnaeus

[Physeter] Catodon Linnaeus, 1758, Syst. Nat., ed. 10, 1: 76.—Thomas, 1911, Proc. Zool. Soc. London, 1911: 157 [type history].

Physeter catodon, Harmer, 1928, Proc. Linnaean Soc. London, 140: 62, 88 [Atlantic; Pacific: Ecuador, Chile; Antarctic; history of whaling].— Carcelles, 1932, Physis, 11: 61, 79, fig. 5 (processing of cadaver) [S. Atlantic: Falklands; South Georgia; South Orkneys].—Raven and Gregory, 1933, American Mus. Novit., 677: 1, fig. 1 (animal), fig. 3 (skull), fig. 4 (head in cross section), fig. 5 (nasal region dissection), fig. 6 (head section), fig. 7 (rostrum in longitudinal section) [nasal passages, spermaceti organ].—Townsend, 1935, Zoologica, 19: 7, pl. 2 (distribution map based on log book records from 1761–1920) [seasonal distribution in all seas; recorded from all latitudes of South

American waters].—Mathews, 1938, Discovery Rep., 17: 95, pls. 1–7 (animal), pl. 8 (flensing and spermaceti drawing), pl. 9, fig. 1, 2 (fetus), fig. 3 (mouth), pl. 10 (jaws, cephalopod sucker scars; cysts), pl. 11 (testes, ovaries) [S. Atlantic: South Georgia; South Africa; characters; food; parasites; reproduction; growth; migrations; whaling].—Fraser, in Norman and Fraser, 1938, Giant fishes, whales and dolphins, p. 257, fig. 67 (animal) [characters; habits; distribution].—Kellogg, 1940, Nat. Geogr. Mag., 77(1): 40, pl. 1 (animal), fig. p. 58 (flensing), fig. p. 63 (stranded animal) [characters; habits; distribution].—Gibson-Hill, 1950, Bull. Raffles Mus., Singapore, 22: 78 [Indian: Cocos-Keeling Islands].—Hamilton, 1952, Comun. Zool. Mus. Hist. Montevideo, 4(66): 2, 3 [S. Atlantic: Falklands].—Budker, 1959, Whales and whaling, p. 40, pl. 3c (animal), pl. 17 (animal harpooned) Icharacters; habits; maximum length 60 feet (not 90 feet as recorded in Norwegian Whaling Gazette, 1948)].—Fraser and Purves, 1960, Bull. Brit. Mus. (Nat. Hist.), Zool., 7: 42 et seq. [auditory system].— Clarke, 1962, Norsk Hvalf.-Tid., 51: 274, 277 [S. Pacific: Chile; Ecuador (coast to Galápagos); seasonal and sexual trends; sexual and interspecific segregation; concentrations].—Tomilin, 1962, Cetacea of the U.S.S.R., Fauna U.S.S.R., 79: 98, fig. 25 (animal), fig. 25 (skull) [distribution; concentrations; movements; migrations; natural history; economics].—Lévèque, 1963, Mammalia, 27(4): 608, pl. 15, fig. 2 (animal) [S. Pacific: Ecuador (Galápagos)].—Clarke, 1964, Norsk Hvalf.-Tid., 53(11): 297 [S. Pacific: Chile (Talcahuano, 36°45' S., 73°12′ W., Iquique, 20°17′ S., 70°09′ W.); Peru (Pisco, 13°47′ S., 76°15′ W.; Paita, 05°05′ S., 81°10′ W.); sexual maturity, breeding].

Physeter catodon catodon, Tomilin, 1957, Mammals of eastern Europe and northern Asia, 9(Cetacea): 416 [northern race recognized].

[Physeter] Macrocephalus Linnaeus, 1758, Syst. Nat., ed. 10, 1: 76 [N. Atlantic (type locality: "Oceano Europeao"); name based primarily on a description of the sperm whale in Fauna Suecia, no. 262].— Thomas, 1911, Proc. Zool. Soc. London, 1911: 157 [type history; type locality: restricted to Norwegian seas; a synonym of P. catodon].

Catodon macrocephalus, Lacépède, 1804, Hist. Nat. Cétacées, p. xxxix, 165, pl. 10 (animal), pl. 11 (skull), pl. 12 (rib, vertebrae) [characters; whaling; habits; ambergris].—Bennett, 1840, Narrative of a whaling voyage round the globe, p. 143, fig. (animal) [anatomy; habits; whaling; commerce].

Physeter macrocephalus, Beale, 1839, Natural History of the sperm whale (in text) [S. Pacific: Peru (Paita, Piura), Galapagos, Chile; life history; anatomy; physiology; whaling; utilization].—Gay, 1847, Hist. Chile, Zool., 1: 177 [S. Pacific: Chile].—Van Bénéden, 1888, Mem. Cour. Aut. Mem. Acad. Roy. Belgique, 41: 11 (separate) [history; characters; habits; whaling; distribution; specimens; parasites].—Blanford, 1891,

Fauna of British India, p. 571, fig. 185 (animal) [Indian: India (Madras)].-Lahille, 1898, Primera reunión del Congreso Latinoamericano, 3: 199 [S. Pacific: Argentina (Buenos Aires)].—Beddard, 1900, Book of whales, p. 192 [characters; habits; ambergris].—Racovitza, 1903, Expédition Antarctique Belgique, Cetacea, p. 57 [South Temperate Zone and drift ice; believed to be absent from pack ice].— Lahille, 1905, Rev. Jardín Zool., Buenos Aires, 1905: 66 [characters].— Castillo, 1906, Caza de ballena en la isla Santa María, Min. Industria, Santiago de Chile, p. 4 [S. Pacific: Chile (Isla Santa María, Arauca); whaling].—Mörch, 1911, Proc, Zool. Soc. London, 1911: 661 [S. Atlantic: Argentina (Patagonia); Falklands; South Georgia; South Shetlands; habits; movements].-Salvesen, 1914, Scottish National Antarctic Expedition, Zool., 4(19): 482 [S. Atlantic: Falklands; whaling industry].—Oliver, 1922, Proc. Zool. Soc. London, 1922; 565 [distribution].—Slijper, 1938, Bull. Mus. Roy. Hist. Nat. Belgique, 14(10): 8 [Antarctic; N. Atlantic: Panama; characters].—Boschma, 1938, Temminckia, 3: 151, fig. 1 (palatal pits), figs. 2-5 (figures of sperm whales ex authors), fig. 6 (lower jaw), figs. 7-9 (maxillary teeth), figs. 10-13 (mandibular teeth), figs. 14, 15 (dental position and occlusion) [N. Atlantic: Netherlands; characters; weights; osteology; odontology; distribution; taxonomic history; nomenclature; catodon regarded as unidentifiable].—Cabrera and Yepes, 1940, Mamíferos sudamericanos, p. 304, pl. 75 (animal) [S. Atlantic: Brazil, Falklands; S. Pacific: Chile, Peru, Galápagos].—Sapin-Jaloustre, 1953, Mammalia, 17: 238, figs. 7, 8 (animal) [characters; habits].—Mann, 1957, Invest. Zool. Chilenas, 4: 99 [S. Pacific: Chile; key characters].

P[hyseter] macrocephalus, Schneider, 1946, Bol. Soc. Biol. Concepción (Chile), 21: 81 [S. Pacific: Chile (Concepción); very common].—Yañez, 1948, Rev. Biol. Marina, Valparaiso, 1: 118 [S. Pacific: Chile (entire coast); characters].

[Physeter] Microps Linnaeus, 1758, Syst. Nat., ed. 10, 1; 76 [N. Atlantic (type locality: "Oceano Septentrionali"); name based on a sperm whale described by Artedi (1738, Synonymia nominum piscium, p. 104)].—Thomas, 1911, Proc. Zool. Soc. London, 1911: 157 [type history; a synonym of *P. catodon* Linnaeus].

[Physeter] tursio Linnaeus, 1758, Syst. Nat., ed. 10, 1: 77 [N. Atlantic (type locality: "Oceano Septentrionali"); name based on a sperm whale described by Artedi (1738, Synonymia nominum piscium, p. 104)].—Thomas, 1911, Proc. Zool. Soc. London, 1911: 157 [type history; a synonym of *P. catodon* Linnaeus].

Physeter Novae Angliae Borowski, 1780, Gemeinnüzzige Naturgeschichte des Thierreichs, 2: 32 [N. Atlantic: U.S.A. (type locality: New England); name based on the "cachalot de la Nouvelle Angleterre" of Brisson (1756, Reg. Anim., p. 360)].

- Physeter Andersonii Borowski, 1780, Gemeinüzzige Naturgeschichte des Thierreichs, 2: 33 [N. Atlantic (type locality: Iceland and Greenland); name based on the "cachalot à dents pointues" of Brisson (1756, Reg. Anim., p. 362)].
- P[hiseter (sic)] trumpo Bonnaterre, 1789, Tabl. Encycl. Méth. Cétologie, p. 14, pl. 8, fig. 1 (animal) [N. Atlantic: France (type locality: Bayonne); description based on several specimens reported in literature but primarily on the individuals stranded at Bayonne, France].
- P[hiseter (sic)] cylindricus Bonnaterre, 1789, Tabl. Encycl. Méth. Cétologie, p. 16, pl. 7, fig. 1 (animal) [N. Atlantic: Greenland (type locality); name based on the accounts by Anderson (1747, Hist. Groenland, p. 148, fig.)].
- Physalus cylindricus, Lacépède, 1804, Hist. Nat. Cétacées, p. 219, pl. 9, fig. 3 (animal) [characters].
- Cetus cylindricus, Billberg, 1828, Synopsis faunæ scandinaviæ, p. 39 [characters].
- P[hiseter (sic)] mular Bonnaterre, 1789, Tabl. Encycl. Méth. Cétologie, p. 17, pl. 8, fig. 5 (tooth) [N. Atlantic: Greenland (type locality); name based on the accounts by Anderson (1747, Hist. Groenland, 2: 118)].
- Ph[yseter] macrocephalus niger Kerr, 1792, Animal kingdom, p. 360 [type: black sperm whale with two dorsal fins].
- Ph[yseter] macrocephalus cinereus Kerr, 1792, Animal kingdom, p. 361 [N. Atlantic: U.S.A. (type locality: New England); based on the "cachalot de la Nouvelle Angleterre" of Brisson (1756, Reg. Anim., p. 360)].
- Ph[yseter] micr[ops] rectidentatus Kerr, 1792, Animal kingdom, p. 362 [name based on the straight-toothed sperm whale or "cachalot à dents pointues" of Brisson (1756, Reg. Anim., p. 362)].
- Ph[yseter] micr[ops] falcidentatus Kerr, 1792, Animal kingdom, p. 361 [name based on the "cachalot à dents en faucilles" of Brisson (1756, Reg. Anim., p. 363)].
- Physeter maximus G. Cuvier, 1798, Tabl. Elém. Hist. Nat., p. 176 [N. Atlantic: France (near Andierne, Basse Bretagne); name based on the "grand cachalot" of Bonnaterre (1798, Tabl. Méth. Cétologie, p. 12, pl. 7, fig. 2); type, one of 31 sperm whales stranded near Andierne].
- Physeter gibbosus Schreber, 1802, Säugthiere, pl. 338 (animal) [no text; figure of type ex "Roberts, Philos. Trans. LX, p. 321, tab. 9"].
- Catodon svineval Lacépède, 1804, Hist. Nat. Cétacées, pp. xxxix, 216 [part, description only, not pl. 9, fig. 2 (=skull of Globicephala); N. Atlantic: Norway (type locality)].
- Physeter orthodon Lacépède, 1804, Hist. Nat. Cétacées, pp. xli, 236 [N. Atlantic: Greenland (type locality); name based on the Arctic sperm whale described by Anderson, 1747, Hist. Groenland].—Sonnini (Lacépède), 1804, Hist. Nat. Cétacées, pp. 38, 339 [characters].

Physeterus [sic] sulcatus Lacépède, 1818, Mem. Mus. Hist. Nat., Paris, 4: 474 [N. Pacific: Japan (type locality); name based on a Japanese drawing of a sperm whale].

Physeter australasianus Desmoulins, 1822, Dict. Class. Hist. Nat., 2: 618 [Indian (type localities: Moluccas and New Zealand); name based on the "cachalot" described by Capt. Benjamin Hammat and figured in Quoy and Gaimard (1824 in Freycinet, Voyage autour du monde..., Zool., Atlas, pl. 12)].

Tursio vulgaris Fleming, 1822, Philos. Zool., 2: 211 [new name for Physeter tursio Linnaeus].

Physeter polycephus Quoy and Gaimard, 1824, in Freycinet, Voyage autour du monde . . . Zool., p. 77; Atlas, pl. 12 (animal) [name based on animal observed at sea].

Catodon polycyphus [sic], Lesson, 1827, Manuel Mammal., p. 422 [classification].

Physeter polycystus [sic], Gray, 1866, Cat. seals and whales Brit. Mus., p. 204 ["this is probably the whale Mr. Couch in his former list referred to Physeter polycystus"; Couch work not located; cf. Couch, 1857, Ann. Mag. Nat. Hist., (2), 20: 424–439, where reference is made (p. 433) to the "polyhistor of Solimis and Sibbald"].

Catodon polyscyphus [sic], Gray, 1866, Cat. seals and whales Brit. Mus., p. 210 [lapsus for polycyphus Lesson].

Delphinus Bayeri Risso, 1826, Hist. Nat. Europe Mérid., 3: 22 [N. Atlantic: France (type locality: Nice, Mediterranean); type a stranded specimen].—Lesson, 1828, Complément des oeuvres de Buffon, p. 247 [N. Atlantic: France (Nice)].

Catodon Colneti Gray, 1850, Cat. Mamm. Brit. Mus., Cetacea, p. 52 [N. Atlantic: Mexico (type locality: Point Angles); name based on the sperm whale of Colnet (1792, Voyage to the South Atlantic, p. 80, fig. 9)].

P[hyseter] australis Gray, 1846, Zoology of the voyage of H. M. S. Erebus and Terror, 1(Mammalia): 22 (in text) [lapsus for *Physeter australasianus* Desmoulins].

Catodon australis, Wall, 1851, Mem. Australian Mus., 1: 1 (reprint), pl. 1 (skeleton) [S. Pacific: Australia (Port Jackson Bay, New South Wales); osteology; referred to Gray's misnomer of *Physeter australasianus* Desmoulins (cf. pp. 3, 35)].—Gray, 1865, Proc. Zool. Soc. London, 1865: 439 [S. Pacific: Australia (Hobart Town); skeleton in the museum of the Royal College of Surgeons].

Physeter catodon australis, Tomilin, 1957, Mammals of eastern Europe and northern Asia, 9(Cetacea): 416 [southern race recognized; name attributed to "Mac-Leay, 1851"].

Catodon (Meganeuron) Krefftii Gray, 1865, Proc. Zool. Soc. London, 1865: 440, figs. 1-4 (vertebrae) [S. Pacific: Australia (type locality: New South Wales); name based on photographs of cervical vertebrae sub-

mitted by Mr. Gerrard Krefft of the Australian Museum]; 1871, Suppl. Cat. seals and whales Brit. Mus., p. 59 [atlas 13 inches wide].

[Physeter] Krefftii, Boschma, 1938, Temminckia, 3: 166 (in text) [regarded as a synonym of Kogia breviceps].

Physeter australis asiaticus Gray, 1866, Cat. seals and whales Brit. Mus., p. 210 [lapsus for Physeter australasianus Desmoulins, 1822].

[Physeter] pterodon, Trouessart, 1898, Cat. Mamm., p. 1056 [listed in synonymy of ?macrocephalus, attributed to "Lesson, Descr. Mamm., p. 167"].

Sperm whale, Ohsumi, 1965, Sci. Rep. Whales Res. Inst., 19:1 [N. Pacific: Japan; reproduction (mating, sex ratios, ovulation, development, genitalia, parturition, lactation, periodicity)].

Type: None in existence; the *catodon* of Linnaeus as defined in the original description (1758, Syst. Nat., 10: 76). Whales of Sibbald, Ray, and Artedicited by Linnaeus and authors may or may not (and need not) conform to the Linnaean concept of *catodon*.

Type Locality: "Oceano septentrionali," restricted to Kairston, Orkney Islands, Scotland, by Thomas (1911, Proc. Zool. Soc. London, 1911: 157).

DISTRIBUTION: Polar, temperate, and tropical seas.

REMARKS: Boschma (1938, Temminckia, 3: 161 ff.) argues that Physeter catodon Linnaeus, 1758, is unidentifiable and should be replaced by P. macrocephalus Linnaeus, 1758. The latter, he affirms, had already been "chosen as the valid name of the sperm whale" in 1866 by Murray (The geographical distribution of mammals, London, p. 340); therefore, according to Boschma, designation of catodon as the prior name for the type species of *Physeter* by Thomas, in 1911 (Proc. Zool. Soc. London, 1911(2): 157) is not valid. Boschma's rejection of P. catodon as a sperm whale, though he recognizes it as a synonym of macrocephalus (1938, op. cit., p. 168), derives from descriptions by authors cited by Linnaeus. The Linnaean Physeter catodon, however, is not based on pre-1758 accounts of other authors. Linnaeus himself characterizes the genus Physeter as "Dentes in maxilla inferiore. Fistula in capite s. fronte." The four species included in Physeter are catodon ("dorso impenni, fistula in rostro"), macrocephalus ("dorso impenni, fistula in cervice"), microps, and tursio. The generic and specific diagnoses of *P. catodon* as well as the etymology of its name (Greek for teeth in lower jaw only) are certainly those of the sperm whale. Use by Linnaeus of bibliographic references to prior and equivocal descriptions of supposed sperm whales does not effect one tittle of the zoological status of his own *P. catodon* and the validity and availability of its scientific name. As for the remaining species of Physeter, the cervical position of the blowhole in macrocephalus and the high dorsal fin attributed to microps and tursio are characters that would exclude them from the genus as understood today; nevertheless, authors have generally regarded these forms as inaccurately or fancifully described sperm whales. As such, they are treated as conspecific.

With regard to the name of the type species of *Physeter*, the selection of catodon by Thomas as the first or earliest name for the sperm whale is strictly in accordance with the First Reviser Principle (cf. Code of Nomenclature, Article 24(a)(i)) and must stand. On the other hand, Murray's arrangement of catodon as a junior synonym of macrocephalus is merely part of an uncritical classification of mammals included in the appendix to his book on zoogeography. Murray compiled names without dates, bibliographic references, or regard for priority. Nowhere does he make "it clear that he believes [the synonyms] to represent the same taxonomic unit" (Art. 24) or even address himself to a taxonomic or nomenclatorial problem.

# Family HYPEROODONTIDAE

#### Genus TASMACETUS Oliver

Tasmacetus Oliver, 1937, Proc. Zool. Soc. London, 107: 371.

Type species: Tasmacetus shepherdi Oliver, by original designation.

DISTRIBUTION: New Zealand waters.

### Tasmacetus shepherdi Oliver

Tasmacetus shepherdi Oliver, 1937, Proc. Zool. Soc. London, 107: 371, pls. 1–5 (animal).—McCann, 1964, Tuatara, 12(2): 124 [S. Pacific: New Zealand (Ohawe, Wanganui; Mason Bay, Stewart Island; New Brighton Beach, Christchurch; Summer Spit, Christchurch)].

Type: Nearly complete skeleton of a stranded whale, Wonganui Museum, New Zealand; collected December 1933 by G. Shepherd.

Type locality: Beach at Ohawe, Taranaki, west coast of North Island, New Zealand.

DISTRIBUTION: The same as for the genus.

# Genus BERARDIUS Duvernoy

Berardius Duvernoy, 1851, Ann. Sci. Nat., Paris, (3), Zool. 15: 52, 68.— Flower, 1874, Trans. Zool. Soc. London, 8: 212 [characters; taxonomy].—True, 1910, Bull. U.S. Nat. Mus., 73: 60 [characters].— Harmer, 1924, Proc. Zool. Soc. London, 1924: 545 [characters].— Fraser and Purves, 1960, Bull. Brit. Mus. (Nat. Hist.), Zool., 7: 39, 41, fig. 26 (table) [auditory system; classification].

Berardus Gray, 1863, Proc. Zool. Soc. London, 1863: 200 [emendation of Berardius Duvernoy].

Paikea Oliver, 1922, Proc. Zool. Soc. London, 1922: 574 [included species: Berardius hectori (= B. arnuxi Duvernoy), type by original designation; Mesoplodon mirus True].

Type species: Berardius arnuxi Duvernoy, by original designation.

DISTRIBUTION: In the North Pacific (*Berardius bairdi* Stejneger): from the Bering Sea to California on the east and the Japanese Sea on the west; in the Indian, South Atlantic, and Pacific (*B. arnuxi* Duvernoy): from 33° S. to the Antarctic Ocean.

### Berardius [bairdi] arnuxi Duvernoy

Berardius Arnuxii Duvernoy, 1851, Ann. Sci. Nat., Paris, (3), Zool., 15: 52, 68, pl. 1 (skull).—Gray, 1866, Cat. seals and whales Brit. Mus. p. 348, fig. (skull) [characters].—Hector, 1870, Trans. New Zealand Inst., (1869), 2: 27 [S. Pacific: New Zealand (near Porirua Harbour, west coast); characters].—Hector, 1873, Ann. Mag. Nat. Hist., (4), 11: 106 [S. Pacific: New Zealand].—Flower, 1885, List Cetacea Brit. Mus., p. 12 [S. Pacific: New Zealand (Chatham Island)].—McCann, 1964, Tuatara, 12(2): 124 [S. Pacific: New Zealand (records compiled)].

B[erardius] arnuxii, True, 1910, Bull. U.S. Nat. Mus., 73: 60, 68 [comparisons; measurements].—Fraser, in Norman and Fraser, 1938, Giant fishes, whales and dolphins, p. 273 [S. Pacific: New Zealand; S. Atlantic: Falklands, South Georgia, South Shetlands; characters].

Berardius arnuxii, Hamilton, 1952, Comun. Zool. Mus. Hist. Nat. Montevideo, 4(66): 2, 3 [S. Atlantic: Falklands].

[Berardius] arnuxi, Davies, 1963, Evolution, 17: 110 [probably a subspecies of bairdi].

Berardius arnouxi, Flower, 1874, Trans. Zool. Soc. London, 8: 12, pls. 27-29 (skeleton) [osteology; taxonomy].—Beddard, 1900, Book of whales, p. 228 [characters].—Marelli, 1920, Anal. Mus. Nac. Hist. Nat., Buenos Aires, 30: 411, pls. 1-5 (skeleton) [S. Atlantic: Argentina (Arroyo del Pescado, Buenos Aires); osteology].—Hale, 1939, S. Australian Nat., 19(4): 5 [Indian: South Australia].—Cabrera and Yepes, 1940, Mamíferos sudamericanos, p. 303 [S. Atlantic: Argentina (Río de La Plata); characters].—Taylor, 1957, Proc. Zool. Soc. London, 129: 325 [S. Atlantic: Graham Land; in small sea-ice pools].— Mann, 1957, Invest. Zool. Chilenas, 4: 101 [S. Pacific: Chile; key characters].—Hale, 1962, Rec. Australian Mus., 14(2): 231, fig. 1 (caudal fin), pl. 5 (skull, mandible, vertebral scapula) [Indian: Australia (St. Vincent Gulf); osteology; external characters].—McCann, 1962, Rec. Dominion Mus., 4(9): 85, pls. 1, 2 (skull), pl. 3 (mandible and teeth), pl. 4 (antorbital notch and tubercle), pl. 5 (skull) [characters; comparisons; distribution; taxonomic history; Berardius hectori Gray a synonym].

Berardius sp., Marelli, 1918, Physis, 4: 339 [S. Atlantic: Argentina (Arroyo del Pescado, 5 leagues south of La Plata, Buenos Aires)].

Berardius Hectori Gray, 1871, Ann. Mag. Nat. Hist., (4) 8: 117 [S. Pacific: New Zealand (type locality: Titai Bay, Cook Strait); name based on

the "smaller ziphid whale" described by Knox and Hector, 1871, Trans. New Zealand Inst., (1870), 3: 125, pls. 13–15, and two skulls submitted by Hector and Knox; holotype cast ashore January 1866 and presumably preserved by H. Arthur; skull now in British Museum (Natural History), no. 1677b–76.2.16.3]; 1873, Ann. Mag. Nat. Hist., (4), 11: 111 [comments].—Hector, 1875, Trans. New Zealand Inst., 7: 362 [S. Pacific: New Zealand (Lyall Bay); characters of complete specimen].

Mesoplodon hectori, Flower, 1878, Trans. Zool. Soc. London, 10: 416, 418, pl. 71, fig. 4 (skull), pl. 72, fig. 4 (skull) [taxonomy; osteology; distribution; M. knoxi Hector a synonym].—Forbes, 1893, Proc. Zool. Soc. London, 1893: 227 [taxonomy].—Fraser, in Norman and Fraser, 1938, Giant fishes, whales and dolphins, p. 281 [S. Pacific: New Zealand]; 1950, Proc. Linnaean Soc. London, 162(1): 50, pls. 3, 4 (skull) [S. Atlantic: Falkland Islands].—Hamilton, 1952, Comun. Zool. Mus. Hist. Nat. Montevideo, 4(66): 3 [S. Atlantic: Falkland Islands].—McCann, 1962, Rec. Dominion Mus. 4(9): 83 [taxonomic history; characters; regarded as a synonym of arnuxi Duvernoy].

Mesoplodon hectori, Flower, 1885, List Cetacea Brit. Mus., p. 12 [type skull, young, Brit. Mus., no. 1677b-76.2.16.3; received in exchange from Colonial Museum, Wellington; Mesoplodon knoxi Hector a synonym].

Paikea hectori, Oliver, 1922, Proc. Zool. Soc. London, 1922: 575 [characters; taxonomic history].

Mesoplodon knoxi Hector, 1873, Trans. New Zealand Inst. (1872), 5: 168, pl. 6, figs. 4a-b (ear bones) [S. Pacific: New Zealand (type locality: Titai Bay, near Porirua); type, skull and other skeletal parts in Colonial Museum, Wellington, collected by Dr. Knox].

Smaller ziphid whale, Knox and Hector, 1871, Trans. New Zealand Inst., (1870), 3: 125, pl. 13 (animal, vertebra, scapula, tooth, palate), pl. 14 (teeth, lower jaw), pl. 15 (skull) [S. Pacific: New Zealand (Porirua Harbour, January 1862; Titai Bay, 1866, captured by H. Arthur; Worser Bay, 1870)].

Type: Skull only, Muséum National d'Histoire Naturelle, Paris; collected by M. Arnoux, surgeon of the corvette Rhin under the command of Captain Bérard; and remitted to the museum October 20, 1846.

Type locality: Akaroa, near Banks Island, New Zealand.

DISTRIBUTION: South Atlantic, Pacific, and Indian Oceans from about 33°S. to Antarctic pack ice.

# Berardius [bairdi] bairdi Stejneger

Berardius bairdii Stejneger, 1883, Proc. U.S. Nat. Mus., 6: 75.

Berardius bairdi, Omura, Fujino and Kimura, 1955, Sci. Rep. Whales Res. Inst., Tokyo, 10: 89, pls 1-4 (animal), pls. 5, 6 (teeth), pls. 7-9

(skull) [N. Pacific: Japan (north, east, west coasts); characters; life history; whaling; *Hyperoodon rostratus* of Japanese authors regarded as misidentification of *Berardius bairdi*].—Brownell, 1964, Norsk Hvalf.-Tid., 53(3): 60 [N. Pacific: U.S.A. (California, 36°10′ N., 123°10′ W.)].

Berardius vegae Malm, 1883, Bihang Svenska Vet. Akad. Handl., 8(4): 109 [N. Pacific: U.S.S.R. (type locality: Komandorskye Islands, Bering Sea)].

[Berardius] vegaae [sic], Trouessart, 1904, Cat. Mamm., Suppl., p. 779 [misspelling of vegae Malm, in synonymy of B. bairdi].

Berardius vegana [sic], Bourdelle and Grassé, 1955, Traité de Zool., 17: 429 [misspelling of vegae Malm].

Type: Skull, U.S. National Museum, no. 20992; collected autumn 1882 by L. Stejneger.

Type locality: Stare Gavan, eastern shore of Bering Island, Bering Sea, North Pacific.

DISTRIBUTION: North Pacific from Bering Sea to south of Monterey Bay, California, in the east, to Japan in the west.

#### Genus MESOPLODON Gervais

- Aodon Lesson, 1828, Complément des oeuvres de Buffon, 1(Cétacés):
  155, 440, pl. 3, fig. 1 (animal with caption) [type species: Aodon Dalei Lesson (=Physeter bidens Sowerby), by monotypy; generic name preoccupied by Aodon Lacépède, 1789, a genus of fish].
- Nodus Wagler, 1830, Nat. Syst. Amphibien, p. 34 [new name for Aodon Lesson, preoccupied; type species: "Delphinus edentulus Schreb., Cuv. Mammif. Liv. 53. (Heterodon Dalei Less. Man. de Mammal. p. 419. Id. Aodon Dalei Oeuv. de Buff. p. 155. t. 3. f. 1)" (=Physeter bidens Sowerby)].—Hershkovitz, 1961, Fieldiana, Zool., 39: 555 [history; synonymy].—Sheffer and Rice, 1963, U.S. Fish and Wildlife Serv. Spec. Sci. Rep., Fisheries, 431: 1 [regarded as a nomen oblitum on the basis of a sui generis interpretation of the Code of Zoological Nomenclature].
- Micropterus Wagner, 1846, Schreber's Säugthiere, 7: 281, 352 [subgenus of Delphinus; type species: D. micropterus Cuvier (=Physeter bidens Sowerby) by tautonomy and monotypy; generic name preoccupied by Micropterus Lacépède, 1802, a genus of fish].
- Micropteron Eschricht, 1849, Konigl. Danske Vidensk. Selsk. Skrift., Copenhagen, (5), 1: 97 [type species: Delphinus micropterus (=Physeter bidens Sowerby), by tautonomy].
- Dioplodon Gervais, 1850, Ann. Sci. Nat., Paris, (3), 14: 16 (lines 19-20) [type species: Delphinus densirostris Blainville, by original designation and monotypy].—Gervais, 1850, Compt. Rend. Acad. Sci. Paris, 31:

512 [extract of previous article].—Scheffer and Rice, 1963, U.S. Fish and Wildlife Serv., Spec. Sci. Rep., 431: 8 [regarded valid as a subgenus; included species: densirostris, ginkgodens, layardi, stejnegeri].

Mesoplodon Gervais, 1850, Ann. Sci. Nat., Paris, (3), Zool., 14: 16 (line 26) [type species: Delphinus sowerbensis Blainville (=Physeter bidens Sowerby), by original designation and monotypy].—Flower, 1878, Trans. Zool. Soc. London, 10: 415 [taxonomic revision].—Forbes, 1893, Proc. Zool. Soc. London, 1893: 216 [development of mesorostral bone; taxonomy].—True, 1910, Bull. U.S. Nat. Mus., 73: 3 [taxonomic review; Paikea Oliver regarded as a synonym].—Kellogg, 1928, Quart. Rev. Biol., 3: 61 [history; relationships].—Winge, 1942, Interrelat. Mam. Gen., 3: 306 [characters; classification].—Orr, 1953, Journ. Mammal., 34: 239 [review of species].—Nishiwaki and Kamiya, 1958, Norsk Hvalf.-Tid., 47: 440 [revision].—McCann and Talbot 1964, Proc. Linn. Soc., 175(2): 137 [characters; species in South African waters].

Mesodiodon Duvernoy, 1851, Ann. Sci. Nat., Paris, (3), Zool., 15: 41 [included species: Mesodiodon Sowerbyi Duvernoy (type=Delphinus sowerbensis Blainville=Physeter bidens Sowerby), Mesodiodon micropterum (=Delphinus micropterus Cuvier=Physeter bidens Sowerby), Mesodiodon densirostre (=Delphinus densirostris Blainville), Mesodiodon longirostre, "que est le Ziphices [sic] longirostris de Cuvier [fossil]"].

Mesiodon Gray, 1866, Cat. seals and whales Brit. Mus., p. 349 [misspelling of Mesodiodon Duvernoy, 1851].

Diplodon Gray, 1866, Cat. seals and whales Brit. Mus., p. 349 [misspelling of Dioplodon Gervais, 1850].

Dolichodon Gray, 1866, Cat. seals and whales Brit. Mus., p. 353 [subgenus of Ziphius Cuvier; type species: Ziphius layardii Gray, by monotypy].

Callidon Gray, 1871, Ann. Mag. Nat. Hist., (4), 7: 368 [type species: Mesoplodon Güntheri Krefft (= Ziphius layardii Gray), by monotypy].

Neoziphius Gray, 1871, Suppl. cat. seals and whales Brit. Mus., p. 101 [type species: Neoziphius europaeus Gervais (=Dioplodon europaeus Gervais), by monotypy].

Oulodon von Haast, 1876, Proc. Zool. Soc. London, 1876: 457 [type species: Mesoplodon grayi Haast, by monotypy].—Von Haast, 1877, Trans. New Zealand Inst., 9: 450 [characters].

Type species: *Delphinus sowerbensis* Blainville (=*Physeter bidens* Sowerby), by monotypy.

DISTRIBUTION: In the eastern Atlantic: from Norway and the British Isles to the Madeiras, the Mediterranean, and off the coast of South Africa; in the western Atlantic: from Newfoundland, Canada, into the Caribbean to Trinidad, and from the coast of Chubut, Argentina (42° S.), to the Falkland Islands; in the eastern Pacific: from the Bering Sea to

La Jolla, California, in the north and the coast of Chile in the south; in the western Pacific: from the Bering Sea to Japan and from Australia to New Zealand; in the Indian Ocean.

Remarks: As shown in the generic synonymy, the names Nodus Wagler, Micropteron Eschricht, and Dioplodon Gervais take priority, in the order given, over Mesoplodon Gervais. The first, Nodus, has had no currency as a senior synonym of Mesoplodon. It has, instead, been cited incorrectly as a junior synonym of Hyperoodon Lacépéde (cf. Ellerman and Morrison-Scott, 1951; Hall and Kelson, 1959). The second, Micropteron, has been used rarely in the primary literature and never during this century. Both Nodus and Micropteron would be regarded as nomina oblita by adherents to Article 23(b) of the International Code of Zoological Nomenclature. Dioplodon was published simultaneously with Mesoplodon but generally has been cited from a later publication. Although Dioplodon has line priority over Mesoplodon, it may be treated as a junior synonym of it in accordance with Article 24(a), (i) of the International Code.

### Mesoplodon bidens Sowerby

"Dauphin de Dale" Blainville (not Dale), 1825, Bull. Sci. Soc. Philom. Paris, 4: 139 [N. Atlantic: France (Le Hâvre); stranded Sept. 9, 1825; characters from fresh animal; skin and skeleton deposited in Paris Museum].—F. Cuvier, 1826, in E. Geoffroy and F. Cuvier, Hist. Nat. Mamm., 6, livr. 53 (February), pl. (animal) and text [characters].

"Dauphin du Hâvre" Blainville, 1826, Bull. Sci. Soc. Philom., Paris, 5: 193, pl. for August (animal, skull) [the "dauphin de Dale" now regarded as specifically distinct from Dale's bottle-head].

Physeter bidens Sowerby, 1804a, Trans. Linnaean Soc. London, 7: 310; 1804b, The British Miscellany, p. 1, pl. 1 (animal) [characters].

Micropteron bidens, Malm, 1871, K. Svenska Vetenskaps Akad. Handl., n. s., 9(1): 96 [N. Atlantic: Norway (Käringön); osteology].

M[esoplodon] bidens, Flower, 1878, Trans. Zool. Soc. London, 10: 415 [classification].—Harmer, 1924, Proc. Zool. Soc. London, 1924: 541 [characters; comparisons].

Mesoplodon bidens, Fraser and Purves, 1960, Bull. Brit. Mus. (Nat. Hist.), Zool., 7: 16, 19, 39, 72, pls. 11, 12 (skull) [auditory system].—Sergeant and Fischer, 1957, Journ. Fish. Res. Board Canada, 14(1): 86, fig. 2 (skull), fig. 3a (head-dorsal surface appears ventral), fig. 3b (mandible) [N. Atlantic: Canada (Chappell Arm, Trinity Bay, Newfoundland); measurements].

Delphinus Sowerbensis Blainville, 1817, Nouv. Dict. Hist. Nat., 9: 177 [new name for *Physeter bidens* Sowerby; characters].

Mesoplodon sowerbensis, Gervais, 1859, Zool. Pal. Françaises, ed. 2, 2: 291, pl. 40, fig. 1 (skull of the Le Hâvre specimen, type of Heterodon dalei (Lesson) [characters; synonyms: Delphinus bidens Sowerby, Delphinus

Dalei "Blainville" (= Heterodon dalei Lesson), Delphinorhynchus micropterus G. Cuvier].—Van Bénéden and Gervais, 1880, Ostéographie des cétacés, p. 392, pl. 26 (skull) [taxonomic history; osteology].

Delphinus Sowerbyi [sic], Desmarest, 1822, Mammalogie, p. 521 [characters].

Diodon Sowerbyi [sic], Lesson, 1828, Complément des oeuvres de Buffon, 1(Cétacés): 127 [new name for Physeter bidens Sowerby; characters].

Delphinorhynchus Sowerbyi [sic], Gray, 1846, Ann. Mag. Nat. Hist., (1), 17: 84 [Synonyms: bidens Sowerby, micropterus Cuvier, dalei Lesson].

M[esodiodon] Sowerbyi [sic], Duvernoy, 1851, Ann. Sci. Nat., Paris, (3), 15: 69 [characters; classification].

Diodon Sowerbæi [sic] Bell, 1837, History of British quadrupeds, p. 497, fig. (animal) [new name for *Physeter bidens* Sowerby; characters; history].

Diodon sowerbi [sic], Hamilton, 1837, Jardine's Naturalist's Library, Mammalia, 6(whales): 192, pl. 12 (animal) [characters].

Delphinus sowerbi [sic], Eschricht, 1851, Kongl. Danske Vidensk. Selsk. Skr., (5), 2: 40 (separate) [type skull in anatomical museum of Oxford University].

Ziphius Sowerbiensis [sic], Gray, 1846, Zoology of the voyage of H.M.S. Erebus and Terror, 1(Mammalia): 27, pl. 5, figs. 2-4 (skull) [characters]; 1866, Cat. seals and whales Brit. Mus., p. 350, fig. 71 (skull) [characters; taxonomic history].

Mesoplodon sowerbiensis, J. A. Allen, 1869, Bull. Mus. Comp. Zool., 1(8): 205 [N. Atlantic: U.S.A. (Nantucket Island, Massachusetts)].

Micropteron Sowerbiensis [sic], Van Bénéden, 1868, Bull. Acad. Roy. Sci. Belgique, 25: 120 [skin and skull of Heterodon dalei Lesson, in Paris museum].

Delphinus Sowerbyensis [sic], Eschricht, 1852, Ann. Mag. Nat. Hist., (2), 9: 290 [English translation of Danish original wherein the name is spelled D. sowerbi (see above)].

Heterodon Dalei Lesson, 1827, Man. Mamm., p. 419 [N. Atlantic: France (type locality: Le Hâvre); name based primarily on the description of Blainville's "dauphin de Dale" erroneously regarded as identical with the "bottle-head" of Dale, and Delphinus edentulus Schreber (=Hyperoodon ampullatus); type skin and skull in Paris museum].

Aodon Dalei, Lesson, 1828, Complément des oeuvres de Buffon, 1 (Cétacés): 155, pl. 3, fig. 1 ("dauphin de Dale," i.e., "du Hâvre" [characters].

Nodus Dalei, Gray, 1850, Cat. Mamm. Brit. Mus., Cetacea, p. 74 [name in synonymy of *Delphinorhynchus micropterus*; name combination attributed to Wagler, 1830].

Delphinus micropterus G. Cuvier, 1829, Règne animal, ed. 2, 1: 288 [N. Atlantic: France (type locality: Le Hâvre); name based solely

on the incorrectly identified "dauphin de Dale" of Blainville and F. Cuvier].

D[elphinorhynchus] Micropterus, F. Cuvier, 1836, Hist. Nat. Cétacés, p. 114, pl. 9 [sic=pl. 8], fig. 1 (animal) [type history; characters].

Delphinus micropteron Tomilin, 1957, Mammals of eastern Europe and northern Asia, 9(Cetacea): 477 [misprint for micropterus in synonymy of Mesoplodon bidens].

Type: A stranded male, skull only preserved, originally in Sowerby's museum now in the museum of the University of Oxford; collected 1800 by Mr. James Brodie.

Type locality: Brodie House, Elginshire, Scotland.

DISTRIBUTION: North Atlantic from Norway, Baltic Sea, and British Isles into the Mediterranean Sea on the east and from Newfoundland to Massachussetts on the west.

## Mesoplodon europaeus Gervais

Dioplodon europæus Gervais, 1848–1852, Zoologie et paléontologie françaises, ed. 1, p. 4 [a nomen nudum according to recent authors; work not seen]; 1855, Hist. Nat. Mamm., 2: 320 [valid description]; 1859, Zoologie et paléontologie françaises, ed. 2, pp. 289, 298, 299 [nomen nudum; evidently also a nomen nudum in the first edition].— Van Bénéden, 1863, Mém. couronnés et autres Mém., Acad. Roy. Belgique, 16: 18, pl. 1 (skull) [comparisons].

Neoziphius europæus, Gray, 1871, Suppl. Cat. seals and whales Brit. Mus., p. 101 [classification].

M[esoplodon] europæus, Flower, 1878, Proc. Zool. Soc. London, 1877: 684 [listed].

Mesoplodon europæus, True, 1910, Bull. U.S. Nat. Mus., 73: 11, 76, pl. 2, figs. 1, 2; pl. 5, figs. 1, 2; pl. 8; pl. 10, fig. 4 (skull); pl. 11, figs. 3–6 (mandible), pl. 13 (vertebrae, scapula, sternum, limb bones, lungs) [N. Atlantic: English Channel; U.S.A. (New Jersey)].—Ulmer, 1947, Journ. Mammal., 28: 185 [N. Atlantic: U.S.A. (Florida)].—Miller and Kellogg, 1955, Bull. U.S. Nat. Mus., 205: 651 [listed].

Nodus europaeus, Hershkovitz, 1961, Fieldiana, Zool., 39: 559 [nomenclature].

Dioplodon gervaisi Deslongchamps, 1866, Bull. Soc. Linn. Normandie, 10: 176.

Mesoplodon gervaisi, Ellerman and Morrison-Scott, 1951, Checklist, Palaearctic and Indian mammals, p. 725 [europaeus Gervais a nomen nudum].—Fraser, 1955, Ann. Mag. Nat. Hist., (12), 8: 624, pls. 13–15 (skull) [N. Atlantic: Trinidad].—Twist and Twist, 1957, Journ. Trinidad Field Nat. Club, 1956: 26 [N. Atlantic: Trinidad].—Moore and Wood, 1957, American Mus. Novit., no. 1831 [N. Atlantic: Trinidad, Jamaica, Cuba (Cayo Alacranes); U.S.A. (Florida, New Jersey,

New York); English Channel; characters; comparisons].—Moore, 1960, American Mus. Novit., 1993: fig. 1 (mandible), figs. 2–4 (teeth), figs. 5–8 (skull) [N. Atlantic: U.S.A. (Florida; Padre Island, Texas; characters; comparisons; distribution].

Mesoplodon densirostris, Gunter (not Blainville), 1955, Journ. Mammal., 36: 573 [N. Atlantic: U.S.A. (Padre Island, 40 miles south of Port Aransas, Texas)].—Moore, 1958, Amer. Mus. Novit., 1897: 6–8 [a misidentification]; 1960, Amer. Mus. Novit., 1993: 2, fig. 1 (mandible) [determined as M. gervaisi Deslongchamps].

Type: Skull only, in Caen Museum; found floating in the English Channel and retrieved by a ship's captain; presented to M. Deslongchamps père through M. Vautier.

Type locality: English Channel.

DISTRIBUTION: North Atlantic in the English Channel and from New York to Florida, Gulf of Mexico, and in the Caribbean from Cuba to Trinidad.

## Mesoplodon mirus True

Mesoplodon mirum True, 1913, Smithsonian Misc. Coll., 60(25): 1.

Mesoplodon mirus, Ulmer, 1941, Proc. Acad. Nat. Sci. Philadelphia, 93: 107, figs. p. 113 (pelvic bones), pl. 20, 21 (animal) [N. Atlantic: U.S.A. (New Jersey); characters; comparisons; history].—Moore and Wood, 1957, American Mus. Novit., no. 1831, fig. 1 (animal) [characters; comparisons; distribution].—Talbot, 1960, Nature, 186(4733): 406 [Indian: South Africa (Wilderness, 170 miles east of Cape Agulhas)].—McCann and Talbot, 1964, Proc. Linn. Soc. London, 75(2): 137, fig. 1 (teeth), pl. 1 (animal), pls. 2–5 (skull), pl. 6 (teeth) [characters; distribution; synonymy].—Barriety, 1962, Bull. Cent. Rech. Sci. Biarritz, 4(1): 94 [N. Atlantic: France (Bidart); work not seen].

Type: Stranded animal, skull and partial postcranial skeleton, also cast of entire body and cast of head, U.S. National Museum, no. 175019, collected July 26, 1912, by U.S. Bureau of Fisheries.

Type locality: Bird Island shoal, Beaufort Harbor, North Carolina, North Atlantic.

DISTRIBUTION: In North Atlantic: the British Isles and French coast, and from Cape Breton Island, Nova Scotia, to Florida; in South Atlantic: known only from off the southern coast of South Africa.

## Mesoplodon grayi Haast

Berardius hectori, Hector (not Gray), 1874, Trans. New Zealand Inst., 1873, 6: 86, pl 15A (mandible and tooth) [S. Pacific: New Zealand (Kaikoura)]; 1875, Trans. New Zealand Inst., (1874), 7: 262 [S. Pacific: New Zealand (Lyttleton Bay); characters].

Mesoplodon Grayi, Haast, 1876, Proc. Zool. Soc. London, 1876: 9 (original description), 457 [S. Pacific: New Zealand (Saltwater Creek, 30 miles north of Banks Peninsula); characters; type of Oulodon Haast].— Courtenay-Latimer, 1963, Ann. Cape Prov. Mus., 3: 122, fig. (animal) [Indian: South Africa (Gulu)].

Mesoplodon grayi, Flower, 1878, Trans. Zool. Soc. London, 10: 417, pls. 71, 72 (skull), pl. 3 (skeleton) [taxonomy; osteology; comparisons; distribution].—Forbes, 1893, Proc. Zool. Soc. London, 1893: 229, pls. 12-15 (skull and transverse sections of rostrum) [development of rostrum; cranial variation; systematics; synonyms: knoxi Hector. hectori Hector (not Gray), haasti Flower].-True, 1910, Bull. U.S. Nat. Mus., 73: 76 [S. Atlantic: Argentina (Bahia Nueva, Chubut): S. Pacific: New Zealand (Chatham Island)].—Oliver, 1922, Proc. Zool. Soc. London, 1922: 572 [S. Pacific: New Zealand]—Iredale and Troughton, 1934, Mem. Australian Mus., 6: 62 [S. Pacific: Australia (Tasmania; Victoria); synonyms: haasti Flower, australis Flower].— Fraser, in Norman and Fraser, 1938, Giant fishes, whales and dolphins. p. 281 [characters].—Cabrera and Yepes, 1940, Mamíferos sudamericanos, p. 302 [S. Atlantic: Argentina (Golfo Nuevo, Chubut)].— Boschma, 1950, Proc. Kongl. Nederl. Akad. Wet., 53: 779, figs. 2-3 (rostrum), pl 1, fig. 2 (teeth) [N. Atlantic: Netherlands (Kijkduin, Loosduinen); characters].—Barnard, 1954, Guide book to South African whales and dolphins, p. 19, fig. 10 (animal) [S. Atlantic: South Africa].—Mann, 1957, Invest. Zool. Chilenas, 4: 101 [S. Pacific: Chile].—McCann, 1964, Tuatara, 12(2): 124 [S. Pacific: New Zealand (records compiled)].

Oulodon grayi, Haast, 1877, Trans. New Zealand Inst., 1876: 9, 450, pl. 26, fig. 3 (skull) [S. Pacific: New Zealand (Chatham Islands); characters; type of Oulodon Haast].

Mesoplodon grayi, Hale, 1932, Rec. S. Australian Mus., 4(4): 489, fig. 1 (skeleton), figs. 2-4 (skull), figs. 5, 6 (mandible), figs. 7-9 (teeth), fig. 10 (forelimb bones and scapula) [Indian: Australia (Young Husband Peninsula near mouth of Murray River)].

Mesoplodon haasti Flower, 1878a, Proc. Zool. Soc. London, 1877: 684 [S. Pacific: New Zealand; type a portion of cranium in the Royal College of Surgeons]; 1878b, Trans. Zool. Soc. London, 10: 417 (ftn.), 421, pls. 71, 72 (rostrum), pl. 73 (vertebral column) [osteology; comparisons].—Beddard, 1900, Book of whales, p. 219 [characters].—Lillie, 1915, British Antarctic (Terra Nova) Expedition 1910, Zool., 1(3): 119 [S. Pacific: New Zealand (Great Exhibition Bay, North Cape); probably conspecific with grayi and haasti.].

Mesoplodon australis Flower, 1878, Trans. Zool. Soc. London, 10: 417 (ftn.), 419, pl. 71, fig. 1, p. 72, fig. 1 (skull), pl. 73, fig. 3 (vertebral column) [S. Pacific: New Zealand (type locality); osteology; com-

parisons]; 1885, List Cetacea Brit. Mus., p. 11 [type an articulated skeleton Brit. Mus., 1677a-76.2.16.2; received in exchange from the Wellington Museum, New Zealand].

Mesoplodon Layardi, Lahille (not Gray), 1905, Rev. Jardin Zool., Buenos Aires, 1905, p. 97 [S. Atlantic: Argentina (Bahia Nueva, Chubut)]; 1914, Enumeración y zoogeografía de los mamíferos de la República Argentina, p. 32 [S. Atlantic: Falkland Islands, South Africa (Cape of Good Hope)].

[?] Mesoplodon [sp.] Bini, 1951, Boll. Pesca, Piscic. Idrobiol. Minist. Agric. For., (27), 6(1): 5, figs. 1-4 (animal) [S. Pacific: Chile (Iquique, Tarapacá); external characters; comparisons].

Types: Three skulls, Canterbury Museum, Christchurch, New Zealand; received from W. Hood.

Type Locality: Waitangi Beach, Chatham Island, New Zealand.

DISTRIBUTION: In Indian Ocean: from South Africa and Australia; in South Pacific: from New Zealand to the coast of Chile; in South Atlantic: from the Argentine coast and Falklands to South Africa; in North Atlantic: recorded from the Netherlands coast (Boschma, 1950, Proc. Kongl. Nederlandsche Akad. Wet., 53: 779).

## Mesoplodon ginkgodens Nishiwaki and Kamiya

Mesoplodon densirostris Ogawa (not Blainville), 1938, Anat. Inst. Kaiserl. Japan Univ. Sendai., 21: 173 [work not seen; N. Pacific: Japan].

M[esoplodon] bidens, Nishiwaki (not Sowerby), 1957, Coll. Rep. Tokyo Univ. Press, p. 151 [N. Pacific: Japan; reidentification of the M. densirostris of Ogawa].

Mesoplodon ginkgodens Nishiwaki and Kamiya, 1958, Sci. Rep. Whales Res. Inst., 13: 53–83 (name, p. 77), figs. 1, 2, 4 (animal), fig. 5 (fluke), figs. 7, 9–12 (vertebrae, sternum, pectoral limb bones, hyoid), fig. 13 (tooth), pls. 1–5 (head and skull), pls. 6–9 (skeletal parts), pls. 10, 11 (teeth), pls. 12–16 (skulls of Mesoplodon spp.), pl. 17 (teeth of Mesoplodon spp.).—Nishiwaki and Kamiya, 1958, Norsk Hvalf.-Tid., 47: 440 [republication of original description].—Moore and Gilmore, 1965, Nature, 205(4977): 1239 [N. Pacific: U.S.A. (Delmar, 15 miles north of San Diego, California); characters; comparisons; Mesoplodon hotaula Deraniyagala a synonym].

Mesoplodon hotaula Deraniyagala, 1963, Ceylon today, 12(3): 13, pl. figs. 1, 2 (head), 3 (skull), 4 (mandible) [Indian: Ceylon (type locality: Ratmalana near Colombo); type, female, skull, dorsal fin, flukes, and plaster cast of head, Colombo Museum Z.W. (Zoological Survey); washed ashore Jan. 26, 1963].—Deraniyagala, 1963, Spoila Zeylandica, 30(1): 84 [characters].—Moore and Gilmore, 1965, Nature, 205(4977): 1240 [type examined; regarded as identical with ginkgodens Nishiwaki and Kamiya].

Type: Stranded animal; entire skeleton only preserved, National Science Museum, Tokyo; collected Sept. 23, 1957.

Type locality: Oiso Beach, Sagami Bay, near Tokyo, Japan.

DISTRIBUTION: In northern Pacific, Japan on the west, California (Delmar, near San Diego) on the east; Indian Ocean (Ceylon).

## Mesoplodon layardi Gray

Ziphius Layardii Gray, 1865a, Proc. Zool. Soc. London, 1865: 358, fig. (skull, lower jaw, teeth); 1865b, Proc. Zool. Soc. London, 1865: 524 [characters]; 1866, Cat. seals and whales Brit. Mus., p. 353, fig. 72 (skull, teeth) [characters].

Dolichodon Layardii, Gray, 1871, Suppl. Cat. seals and whales Brit. Mus., p. 101 [classification]; 1873, Ann. Mag. Nat. Hist., (4), 11: 110 [characters].

Mesoplodon layardii, Hector, 1873, Ann. Mag. Nat. Hist., (4), 11: 106 [S. Pacific: New Zealand (Chatham Island); characters].—Forbes, 1893, Proc. Zool. Soc. London, 1893: 227, fig. 2 (transverse section of rostrum) [development of rostrum; taxonomy; synonyms: guentheri (sic) Gray, traversii Gray, floweri Haast, güntheri (sic) Turner].—Hale, 1931, Rec. S. Australian Mus., 4(3): 306, figs. 20, 21 (skull), figs. 22, 23 (animal), figs. 2, 24, 25 (teeth), figs. 26, 27 (skull) [Indian: Australia (Port Victoria, Yorke Peninsula; Victor Harbour, Encounter Bay)].—Iredale and Troughton, 1934, Mem. Australian Mus., 6: 61 [S. Pacific: Australia (Queensland; Tasmania)].—G. M. Allen, 1942, Extinct and vanishing mammals of the western hemisphere, p. 483 [distribution].

Mesoplodon layardi [sic], Flower, 1878, Proc. Zool. Soc. London, 1877: 684 [synonyms: longirostris Gray, floweri Haast, guentheri (sic) Krefft, traversii Gray; distribution]; 1885, List Cetacea Brit. Mus., p. 11 [skull in British Museum, no. 69.4.5.2, purchased from South African Museum].—Beddard, 1900, Book of whales, p. 220 [characters].—Fraser, in Norman and Fraser, 1938, Giant fishes, whales and dolphins, p. 280 [S. Pacific: New Zealand; Australia; S. Atlantic: Falkland Islands].—Oliver, 1922, Proc. Zool. Soc. London, 1922: 574 [S. Pacific: New Zealand].—McCann, 1964, Tuatara, 12(2): 124 [S. Pacific: New Zealand (records compiled)].

M[esoplodon] layardi, Flower, 1878, Trans. Zool. Soc. London, 10: 416 [taxonomy; distribution; synonyms: longirostris Krefft (ms.), traversii Gray, floweri Haast, güntheri Krefft].

[Mesoplodon] Layardi, Trouessart, 1898, Cat. Mamm., p. 1067 [synonymy; bibliography].

Mesoplodon Güntheri Krefft, 1871, Ann. Mag. Nat. Hist., (4), 7: 368, fig. (tooth) [S. Pacific: Australia (Little Bay); type a skeleton in the Sydney Museum].

Mesoplodon longirostris Gray, 1873, Proc. Zool. Soc. London, 1873: 145 [name based on ms. and photograph of a skeleton from Australia submitted by Krefft].

Dolichodon Traversii Gray, 1874, Trans. New Zealand Inst., (1873), 6: 96 [S. Pacific: New Zealand (type locality: Chatham Island); name based on specimen of Mesoplodon layardi recorded by Hector, 1873, Ann. Mag. Nat. Hist., (4), 11: 106].

Mesoplodon floweri Haast, 1876, Proc. Zool. Soc. London, 1876: 8 (name and indication), 478, pls. 45 (skeleton), pl. 46 (skull) [S. Pacific: New Zealand (type locality: Saltwater Creek, 30 miles north of Banks Peninsula); type skeleton in Canterbury Museum, New Zealand].— Haast, 1877, Trans. New Zealand Inst., (1876), 9: 442, pl. 25 (skeleton), pl. 26 (skull, trunk, sternum) [S. Pacific: New Zealand (Saltwater Creek); osteology of type].

M[esoplodon] thomsoni Ogilby, 1892, Catalogue of Australian mammals, Australian Mus. Cat., 16: 71 [Krefft ms. name based on individual stranded at Little Bay, near Sydney, Australia; regarded as the female of M. layardi].

Mesoplodon thomsoni, Iredale and Troughton, 1934, Mem. Australian Mus., 6: 62 [in synonymy of Mesoplodon layardii Gray; name erroneously attributed to Flower, 1878, Trans. Zool. Soc. London, 10: 416, "ex Krefft MS."].

Type: Name based on the drawings of a skull in the collection of the South African Museum, Capetown, submitted to Gray, by Mr. E. Layard; type skull presented 1869 by trustees of South African Museum to British Museum, no. 69.4.5.2.

Type locality: South Africa, probably off the Cape of Good Hope. Distribution: South Pacific and Indian Oceans from Australia and New Zealand to the South Atlantic between the Falkland Islands and South Africa.

# Mesoplodon densirostris Blainville

Delphinus densirostris Blainville, 1817, Nouv. Dict. Hist. Nat., 9: 178. M[esoplodon] densirostris, Flower, 1878, Proc. Zool. Soc. London, 1878: 684 [taxonomy; Ziphius sechellensis Gray a synonym].

Mesoplodon densirostris, Harmer, 1924, Proc. Zool. Soc. London, 1924: 575, pls. 1-3 (skull), pl. 4 (mandible, sternum) [characters; Ziphius sechellensis Gray, 1846, a synonym].—Longman, 1926, Mem. Queensland Mus., 8: 260 [N. Atlantic: Madeira Islands; S. Pacific: Australia (Queensland)].—Moore, 1958, American Mus. Nov., 1897: 1, figs. 1-6 (skull, dentition) [N. Atlantic: Bahama Islands (Green Turtle Cay bay, Abaco, 26°46′ N., 77°18′ W.); distribution].—Pringle, 1963, Ann. Cape Prov. Mus., 3: 61, fig. (animal) [Indian: South Africa (Shelly Beach near Cape Recife; Jeffreys Bay)].

Nodus densirostris, Galbreath, 1963, Journ. Mammal., 44: 422 [N. Pacific (Midway Island)].

Ziphius sechellensis Gray, 1846, Zoology of the voyage of H. M. S. Erebus and Terror, 1(Mammalia): 28, pl. 6, figs. 1, 2 (skull) [Indian: Seychelles Islands (type locality); type a skull only in Paris Museum, collected by Leduc].

Type: Distal 9 inches of rostrum, Museum National d'Histoire Naturelle, Paris.

Type locality: Unknown.

DISTRIBUTION: In eastern Atlantic: off the Madeira Islands and South Africa; in western Atlantic: from off Nova Scotia, Canada, and Bahama Islands; in western Pacific: off Lord Howe Islands and Queensland, Australia; in northern Pacific: the Midway Islands; in Indian Ocean: from South Africa (Algoa Bay) and off East Africa (Seychelles Islands) to, presumably, Western Australia.

## Mesoplodon stejnegeri True

Mesoplodon Stejnegeri True, 1885, Proc. U.S. Nat. Mus., 8: 585; 1910, Bull. U.S. Nat. Mus., 73: 24, pls. 3, 6, 9, 10 (skulls), pls. 11, 12 (mandibles, teeth) [N. Pacific: U.S.A. (Bering Islands); origin].

Mesoplodon stejnegeri, Orr, 1953, Journ. Mammal., 34: 241, fig. 1 (mandible, upper two figs. only) [N. Pacific: U.S.A. (California; Yaquina Bay, Oregon; Egg Island, Alaska); characters; comparisons; bowdoini regarded as a synonym].—Nishiwaki and Kamiya, 1959, Sci. Rep. Whale Res. Inst., Tokyo, 14: 35, fig. 10 (left tooth only) [part; N. Pacific: "Aleutian waters"].—Moore, 1963, Amer. Midl. Nat., 70: 396, figs. 1–6, 10 (skulls) [N. Pacific: U.S.A. (Commander Island, Bering Sea; Pribilof Island; Egg Island near mouth of Copper River, Alaska; Kasilof River, Kenai Peninsula, Alaska; Nushagak Peninsula, Alaska; Waatch River, Washington; Yaquina Bay, Oregon); Canada (Vancouver Island, British Columbia); Japan (Akita Beach); characters; comparisons; distribution].

Nodus stejnegeri, Moore, 1963, Amer. Midl. Nat., 70: 416, fig. 9 (teeth) [N. Pacific: U.S.A. (Alaska); generic name in caption only].

Mesoplodon bowdoini, Nishiwaki (not Andrews), 1962, Sci. Rep. Whales Res. Inst., 16: 61, figs. 1, 2 (animal), fig. 3 (flukes), fig. 4 (vertebral column), fig. 5 (snout), fig. 6 (ribs), pls. 1–3 (skull), pl. 4 (teeth), pl. 5 (vertebrae), pl. 6 (pectoral limbs, sternum, hyoid) [N. Pacific: Japan (Shimohama Beach, Akita, Honshu); osteology; comparisons].

Type: Skull of young, without mandible, U.S. National Museum, no. 21112; collected 1883 by L. Stejneger.

Type locality: Bering Island, Bering Sea, Siberia, U.S.S.R.

DISTRIBUTION: Pacific Ocean from Bering Sea to Yaquina Bay, Oregon, on the east, to Akita Beach, Japan, on the west.

### Mesoplodon bowdoini Andrews

Mesoplodon bowdoini Andrews, 1908, Bull. Amer. Mus. Nat. Hist., 24: 203, fig. 1 (tympanic and periotic bones), figs. 2, 3 (mandible), fig. 4 (skeleton), fig. 5 (scapula), pl. 24 (skull).—Oliver, 1922, Proc. Zool. Soc. London, 1922: 569, pl. 3, figs. 1–3 (skull), pl. 4 (mandible; scapula) [South Pacific: New Zealand; characters; osteology; comparisons].—Glauert, 1947, Australian Zool., 11(2): 74 [Indian: Australia (Bunbury, southwestern Western Australia)].—Goodwin, 1953, Bull. Amer. Mus. Nat. Hist., 102: 354 [type history].—Moore, 1963, Amer. Midl. Nat., 70: 396, figs. 11, 12 (mandible, teeth) [S. Pacific: New Zealand (Brighton Beach)].

[?] Mesoplodon stejnegeri, McCann (? not True), 1964, Tuatara, 12(2): 124 [S. Pacific: New Zealand (New Brighton, Christchurch; Waitofara Beach, Wanganui; Manawatu Heads; Stewart Island); bowdoini regarded as a synonym].

Type: Mounted skeleton of adult male, American Museum of Natural History, no. 35027, purchased 1904 from Ward's Natural Science Establishment, Rochester, New York.

Type locality: Brighton Beach, Canterbury Province, New Zealand, South Pacific.

DISTRIBUTION: South Pacific and Indian Ocean from New Zealand waters to western Australia.

# Mesoplodon carlhubbsi Moore

Mesoplodon bowdoini, Hubbs (not Andrews), 1946, Journ. Mammal., 27: 242, pl. 4 (animal; head) [N. Pacific: U.S.A. (La Jolla, California); characters; comparisons].—Orr, 1953, Journ. Mammal., 34: 239, fig. 1 (mandible, lower 2 figs. only) [N. Pacific: U.S.A. (Drake's Bay, California); regarded as conspecific with stejnegeri].

Mesoplodon stejnegeri, Nishiwaki and Tamiya (not True), 1959, Sci. Rep. Whales Res. Inst., 14: 35, figs. 1–8 (skeleton), fig. 9 (skull), fig. 10 (teeth excl. left tooth), pls. 1, 2, 3 (skull), pl. 4 (skeleton) [N. Pacific: Japan (Ayukawa, 65 miles SE., 37°27′ N., 142°30′ E.)].

Mesoplodon carlhubbsi Moore, 1963, Amer. Midl. Nat., 70: 422, figs. 7, 13–15 (skull, teeth), fig. 8 (teeth) [N. Pacific: California (La Jolla; Drake's Bay, Marin Co.; San Simeon Bay, 35°38' N.; San Francisco Bay); Washington (Oyhut, Grays Harbor); Japan (Ayukawa, 65 miles southeast; Kinka-san, 30 miles southeast, 38° N., 142° E.).

Type: Skeleton, hyoids and pelvis in alcohol, dorsal fin, fluke tip, one eye, U.S. National Museum, no. 278031; collected July 25, 1946, by Carl Hubbs.

Type locality: La Jolla, California, North Pacific (32°51′41″ N., 117°15′19″ W.).

DISTRIBUTION: North Pacific, recorded from the east coast of Japan and the west coast of the United States between 32° N. and 47° N.

#### Genus ZIPHIUS G. Cuvier

- Ziphius G. Cuvier, 1823, Recherches sur les ossements fossiles, 5: 350–352.—Turner, 1872, Trans. Roy. Soc. Edinburgh, 26: 759 [taxonomy].—Flower, 1874, Trans. Roy. Soc. London, 8: 207 [taxonomy].—Harmer, 1924, Proc. Zool. Soc. London, 1924: 545 [characters].—Kellogg, 1928, Quart. Rev. Biol., 3: 60 [characters; history; relationship].—Fraser, 1942, Proc. Zool. Soc. London, (8), 112: 21, pls. 1–3 (skull, rostra, teeth) [mesorostral ossification].
- Xiphius Agassiz, 1846, Nomen. Zool., p. 389 [emendation of Ziphius Cuvier].—Winge, 1942, Interrelat. Mamm. Gen., 3: 258 [characters; classification].
- Diodon Lesson, 1828, Complément des oeuvres de Buffon, Hist. nat. animaux rares . . . 1(Cétacés): 123, 440 (name) [included species: Diodon Desmaresti Risso type (=Ziphius cavirostris Cuvier) by original designation (p. 123), D. sowerbyi (sic) Blainville (=Mesoplodon bidens Sowerby); generic name preoccupied by Diodon Linnaeus 1758, a genus of fish and Diodon Storr, 1780, for the narwhal (=Monodon Linnaeus)].
- Orca Wagler, 1830, Nat. Syst. Amphibien, p. 34 [included species: Delphinus bidentatus "Hunt[er]" (=Hyperoodon ampullatus Forster), Delphinus Desmarestii Risso (type=Ziphius cavirostris Cuvier)].
- Hypodon Haldeman, 1841, Proc. Acad. Nat. Sci. Philadelphia, 1: 127
   [included species: H. desmarestii (type=Ziphius cavirostris Cuvier),
   H. Sowerbyi (=Mesoplodon bidens Sowerby); proposed as a new name for Diodon Lesson, preoccupied].
- Aliama Gray, 1864, Proc. Zool. Soc. London, 1864: 242 [type species, by monotypy: Aliama desmarestii (=Delphinus desmarestii Risso=Ziphius cavirostris Cuvier)].
- Petrorhynchus Gray, 1865, Proc. Zool. Soc. London, 1865: 524 [type species: Hyperoodon capensis Gray (= Ziphius cavirostris Cuvier), by monotypy].
- Ziphiorrhynchus Burmeister, 1865, Rev. Farmaceútica, 4: 363 [work not seen]; 1866, Ann. Mag. Nat. Hist., (3), 17: 94 [type species: Ziphiorrhynchus cryptodon Burmeister (= Ziphius cavirostris Cuvier), by monotypy].
- Zyphius Moreno, 1895, Anal. Mus. La Plata, Zool., 3: 4 [reiterated misspelling in combination with Z. chathamensis (sic) and Z. chatamensis (sic)].

Type species: Ziphius cavirostris Cuvier, by original designation and monotypy.

DISTRIBUTION: In the North Atlantic: from the North and Baltic Seas to the Mediterranean and from Massachussets and Rhode Island to Florida and the West Indies; in the South Atlantic: off South Africa and off Argentina; in the North Pacific: from Bering Sea to Baja California on the east, eastern Siberia and Japan on the west, and off the Hawaiian and Midway Islands; in the South Pacific: from the Bismarck Archipelago (New Ireland) to Australia and New Zealand on the west, off Chile on the east; in the Indian Ocean: from South Africa to Australia.

### Ziphius cavirostris G. Cuvier

Ziphius cavirostris G. Cuvier, 1823, Recherches sur les ossemens fossiles, ed. 2, 5(1): 350, 352, pl. 27, fig. 3 (skull).—Turner, 1872, Trans. Roy. Soc. Edinburgh, 26: 759, pls. 29-30 (skull) [Atlantic; taxonomy; synonyms: Ziphius indicus Van Bénéden 1863, Petrorhynchus capensis Gray, Delphinorhynchus australis Burmeister, Epiodon australe Burmeister, Ziphiorhynchus cryptodon Burmeister, Epiodon patachonicus Burmeister].— Flower, 1876, Proc. Zool. Soc. London, 1876: 477 [characters; synonyms: Ziphius novaezelandiae Haast, Epiodon chathamiensis Hector].-Flower, 1885, List Cetacea Brit. Mus., p. 10 [S. Atlantic: South Africa (Cape of Good Hope); type of capensis Gray, skull no. 1517a-69.4.5.1].— Van Bénéden, 1888, Mem. Cour. Autr. Mem. Acad. Roy. Belgique, 41: 77 (separate) [history; characters; habits; distribution; specimens; parasites].—Forbes, 1893, Proc. Zool. Soc. London, 1893: 219, pl. 14, fig. 1 (rostrum of skull) [growth of rostrum, Z. chathamensis (sic) Hector a synonym].-Moreno, 1895, Anal. Mus. La Plata, Zool., 3: 3 [S. Atlantic: Argentina (Bahía de San Antonio, Río Negro)].—Beddard, 1900, Book of whales, p. 233, pl. 13 (animal) [taxonomic history; characters].—Lahille, 1905, Rev. Jardín Zool., Buenos Aires, 1905, p. 69 [S. Atlantic: Argentina (Bahía San Antonio)].-True, 1910, Bull. U.S. Nat. Mus., 73: 30, 77, pls. 14-23 (skulls, mandibles), pl. 24 (mandibles, vertebrae), pl. 25 (sternum, limb bones) [characters; osteology].—Kellogg, 1928, Quart. Rev. Biol., 3: 59, fig. 8 (skull) [characters; relationship].—Fraser, in Norman and Fraser, 1938, Giant fishes, whales and dolphins, p. 275, fig. 70 (animal) [characters; comparisons].-Kellogg, 1940, Nat. Geogr. Mag., 77(1): 69, pl. 10 (animal) [characters; habits].—Cabrera and Yepes, 1940, Mamíferos sudamericanos, p. 303, pl. 74 (animal) [characters].—Hubbs, 1946, Journ. Mammal., 27: 243, pl. 1 (animal, head, flukes), pls. 2, 3 (skull) [N. Pacific: U.S.A. (Del Mar, San Diego, California); characters; comparisons]; 1951, Journ. Mammal., 32: 365 [N. Pacific: Mexico (San Ramón, Baja California, 30° 42.7′ S.; occurrence probable)].— Richards, 1952, Journ. Mammal., 33: 255 [N. Pacific: U.S.A. (Hawaii)].-Barnard, 1954, Guide book to South African whales and dolphins, South African Mus., p. 18, fig. 9 (head, mandible) [not certainly recorded from South African waters].—Mann, 1957, Investig. Zool. Chilenas, 4: 101 [S. Pacific: Chile; key characters].—Clark, 1958, Norsk. Hvalf-Tid., 47(6): 291 [N. Atlantic: U.S.A. (Town Beach, Falmouth, Cape Cod, Massachusetts)].—Fraser and Purves, 1960, Bull. Brit. Mus. (Nat. Hist.), Zool., 7: 39, 40, 79, fig. 22 (air sac system), pl. 10 (skull) [auditory system].—Backus and Schevill, 1961, Norsk. Hvalf.-Tid., 50: 189 [N. Atlantic: U.S.A. (Newport, Rhode Island)].—Deraniyagala, 1960, Spolia Zeylanica, 29: 83 [Indian: Ceylon].—Norris and Prescott, 1961, Univ. California Publ. Zool., 63: 303 [N. Pacific: U.S.A. (Oregon to Baja California); capture; morphology; behavior; mortality; disease].—Erdmann, 1962, Journ. Mammal., 43: 276 [N. Atlantic: Puerto Rico; Cuba; characters; measurements].—Galbraith, 1963, Journ. Mammal., 44: 423 [N. Pacific: Midway Islands].

- D[elphinus] Desmaresti Risso, 1826, Hist. Nat. Europe Mérid., 3: 24, pl. 3, fig. 3 (animal) [N. Atlantic: Mediterranean Sea (type locality); type, animal figured].
- Hyperoodon Desmarestii, Gray, 1850, Cat. Cetacea Brit. Mus., p. 69 [tax-onomy].
- Aliama desmarestii, Gray, 1864, Proc. Zool. Soc. London, 1864: 242 [taxonomy].
- E[piodon] Desmarestii, Carus, 1893, Prod. faunae mediterraneae, 2: 716 [N. Atlantic: Mediterranean Sea].
- Delphinus Philippii Cocco, 1846, Arch. Naturg., (12), 1: 104, pl. 4, fig. c (animal) [N. Atlantic: Italy (type locality: Straits of Messina, Mediterranean Sea)].—Wagner, 1846, Arch. Naturg., (12), 1: ftn. 1, p. 104 [regarded as conspecific with Delphinus micropterus Cuvier and D. desmarestii Risso].
- Hyperoodon Doumetii Gray, 1850, Cat. Mamm. Brit. Mus., Cetacea, p. 68 [N. Atlantic: France (Corsica, Mediterranean Sea); name based on the *Hyperoodon* recorded by Doumet, 1842, Bull. Soc. Cuvier, p. 207, pl. 1, fig. 2 (animal)].
- Hyperoodon Gervaisii Duvernoy, 1851, Ann. Sci. Nat., Paris, (3), Zool., 15: 49, 67 [N. Atlantic: France (type locality: coast of Aresquiers, near Frontignan, Hérault); name based on the skull described and figured by Gervais (1859, Zool. Paléon. France, ed. 2, pl. 39, figs. 2–7); type skull in Paris Museum].
- Ziphius indicus Van Bénéden, 1863, Mémoires couronnés et autres mémoires, Acad. Roy. Sci. Lettr. Beaux-Arts Belgique, 16(1): 23, pl. 1 (skull) [S. Atlantic: South Africa (type locality: Cape of Good Hope); type skull in Louvain Museum].
- A[liama] Indica, Gray, 1865, Proc. Zool. Soc. London, 1865: 528 [classification].

Petrorhynchus Indicus, Gray, 1866, Cat. seals and whales Brit. Mus., p. 346, fig. 69 (skull, tooth) [characters].

Ziphius cavirostris indicus, Deraniyagala, 1945, Spolia Zeylanica, 24(2): 113, fig. 1 (larynx), fig. 2 (skull), fig. 3 (tail), fig. 4 (tympanic bulla), pl. 14 (skull, head, tail, flippers) [part; Indian: Ceylon (Ratmalaña, Colombo Harbor)].

Hyperoodon Capensis Gray, 1865, Proc. Zool. Soc. London, 1865: 359, fig. (skull) [S. Atlantic: South Africa (type locality: possibly off the Cape of Good Hope); type, skull, British Museum (Natural History)].

Petrorhynchus Capensis, Gray, 1865, Proc. Zool. Soc. London, 1865: 524–528, figs. pp. 526, 527 (skull) [characters; classification]; 1866, Cat. seals and whales Brit. Mus., p. 346, figs. 67–68 (skull) [characters].

Hyperodon [sic] semijunctus Cope, 1865, Proc. Acad. Nat. Sci. Philadelphia, 17: 280 [N. Atlantic: U.S.A. (type locality: Charleston, South Carolina); type a skeleton in the Charleston Museum, acquired in 1885 by U.S. National Museum, no. 21975].

Hyperondon [sic] semijunctus, Hall and Kelson, 1959, Mammals of North America, p. 810 [misspelling; listed in synonymy of Ziphius cavirostris].

Delphinorhynchus australis Burmeister, 1865, Allgemeine Zeitschr. Ges. Naturw., Dresden, 26: 262 [S. Atlantic: Argentina (type locality: coast off Buenos Aires); type, stranded male, skeleton and viscera in Museo Argentino de Ciencias Naturales, "Bernardino Rivadavia," Buenos Aires].

Epiodon australe [sic], Burmeister, 1867, Anal. Mus. Publ. Buenos Aires, 1: 309, 312, pl. 15 (animal, external organs), pl. 16 (skeleton, muscles, viscera), pl. 17 (skull), pl. 18 (thoracic skeleton, flipper bones, heart, viscera), pl. 19 (muzzle, oral anatomy), pl. 20 (hyoid, trachea) [S. Atlantic: Argentina (coast of Buenos Aires); synonyms: australis Burmeister, cryptodon Burmeister].

Epiodon australis, Gray, 1871, Suppl. Cat. seals and whales Brit. Mus., p. 98 [classification].

Ziphius australis, Trouessart, 1904, Cat. Mamm., Suppl., p. 777 [classification].

[Ziphiorrhynchus] cryptodon Burmeister, 1865, Rev. Farmaceut., Buenos Aires, 4: 363 [work not seen].

Ziphiorrhynchus cryptodon, Burmeister, 1866, Ann. Mag. Nat. Hist., (3), 17: 94, pl. 3 (animal) [S. Atlantic: Argentina (type locality: shores of Buenos Aires); type an entire animal preserved in sections in the Buenos Aires Museum].

Ziphius cryptodon, Fischer, 1867, Nouv. Arch. Mus. Hist. Nat., Paris, 3: 62, 66 [classification].

Epiodon cryptodon, Gray, 1870, Ann. Mag. Nat. Hist., (4), 6: 394 [classification].

- Epiodon patachonicum Burmeister, 1867, Allgemeine Zeitschr. gesammten Naturw. (Dresden), 29: 5 [new name for Ziphiorrhynchus cryptodon Burmeister].
- Petrorhynchus mediterraneus Gray, 1871, Suppl. Cat. seals and whales Brit. Mus., p. 98 [N. Atlantic: type locality: Mediterranean Sea; name based on bibliographic references to Mediterranean whales with primary reference, the Ziphius cavirostris of Gervais, 1859, Zool. Paléon. France, ed. 2, pl. 38, fig. 2, pl. 39, fig. 1 (skull), from Fos lès Martigues, Bouches du Rhône, France].
- Ziphius aresques Gray, 1871, Suppl. Cat. seals and whales Brit. Mus., p. 98 [name in synonymy of *Epiodon desmarestii*, attributed to Gervais (1869–1878, Atlas Ostéographie des Cétaces, pl. 21, figs. 1–4), who figured the Aresquiès beaked whale but did not name it].
- Ziphius decavirostris Gray, 1871, Suppl. Cat. seals and whales Brit. Mus., p. 98 [name in synonymy of *Epiodon desmarestii*, attributed to Gervais, 1869–1878, Atlas, Ostéographie des Cétacés, pl. 22, figs. 6–7 (cervical vertebrae, sternum), who figured but used the name *Ziphius cavirostris*; Gray cites figures 4–11 of pl. 22 for the Aresquiès *Ziphius* of Gervais but the correct figures are 6–7, as shown above].
- Epiodon Heraultii Gray, 1872, Ann. Mag. Nat. Hist., (4), 10: 469 [N. Atlantic: France; name based on the Ziphius of Aresquiès (Hérault), figured in Van Bénéden and Gervais, 1869–1871, Atlas ostéographie des cétacés, pl. 21, fig. 1–4 (skull)].
- Epiodon chathamiensis Hector, 1873, Ann. Mag. Nat. Hist., (4), 11: 105 [S. Pacific: New Zealand (type locality: Chatham Island); type skull, presumably in the Wellington Museum, New Zealand].
- Ziphius chathamiensis, Iredale and Troughton, 1934, Mem. Australian Mus., 6: 61 [S. Pacific: Australia (Queensland; Tasmania); novaezelandiae Haast a synonym].
- Ziphius chathamensis [sic], Flower, 1885, List Cetacea Brit. Mus., p. 10 [S. Pacific: New Zealand (Chatham Island); articulated skeleton purchased from Dr. Von Haast; two teeth figured in original description].—Lahille, 1914, Enumeración y zoogeografía de los mamíferos de la República de Argentina, p. 32 [S. Atlantic: Argentina (Chubut); a variety of cavirostris Cuvier].
- Zyphius [sic] chathamensis [sic], Moreno, 1895, Anal. Mus. La Plata, Zool., 3: 4 [name only, a misspelling].
- Ziphius chatamensis [sic], Lahille, 1899, Primera reunion del Congreso Latinoamericano, 3: 34 [S. Atlantic: Argentina (Chubut)].
- Ziphius Savii Richiardi, 1873, Arch. per la Zool. (2), 3, pls. 7–8 [work not seen].—Van Bénéden and Gervais, 1880, Ostéographie des cétaces, p. 377 [N. Atlantic: Italy (type locality: coast of Pisa, Ligurian Sea); type skeleton in the Pisa Museum].

Ziphius novæ-zealandiæ Haast, 1876, Proc. Zool. Soc. London, 1876: 466, pl. 15 (skeleton), pl. 16 (skull) [S. Pacific: New Zealand (type locality: Lyttleton Harbor, Banks Peninsula); type a flensed individual with soft parts and skeleton intact, skeleton in the Canterbury Museum, New Zealand; perhaps now in British Museum (cf. Flower, 1885, List Cetacea, p. 10 under Ziphius chathamensis)].—Flower, 1876, Proc. Zool. Soc. London, 1876: 477 [synonyms: Z. chathamiensis Hector, Z. indicus Van Bénéden (Petrorhynchus capensis Gray), Z. australis Burmeister, Z. cavirostris Cuvier].—Haast, 1877, Trans. New Zealand Inst., 1876, 9: 430, pls. 24–26 (skeleton, skull, teeth) [S. Pacific: New Zealand (Lyttleton Harbour, Banks Peninsula); osteology of type skeleton].

Ziphius grebnitzkii Stejneger, 1883, Proc. U.S. Nat. Mus., 6: 77 [N. Pacific: U.S.S.R. (type locality: Komandorskye Island, eastern Siberia, Bering Sea); type, a skull, U.S. National Museum, no. 20993; collected by L. Stejneger].

Type: Fossilized skull, Muséum National d'Histoire Naturelle, Paris, collected in 1804, by Raymond Gorsse.

Type locality: Between Fos and the mouth of the Galégeon, Department des Bouches-du-Rhône, France.

DISTRIBUTION: The same as for the genus.

## Genus HYPEROODON Lacépède

Hyperoodon Lacépède, 1804, Hist. Nat. Cétacées, pp. xliv, 319.—Sonnini (Lacépède), 1804, Hist. Nat. Cétacées, pp. 42, 438.—Van Bénéden and Gervais, 1880, Ostéographie des cétacés, p. 356 [taxonomy].—Flower, 1883, Proc. Zool. Soc. London, 1882: 722 [taxonomy].—Winge, 1942, Interrelat. Mamm. Gen., 3: 305 [characters; classification].

Hyprodon Duméril, 1806, Zool. Analytique, p. 28 [emendation of Hypero-odon Lacépède].

Uranodon Illiger, 1811, Prodr. Syst. Mamm. Avium, p. 143 [emendation of Hyperoodon Lacépède, 1804; type species: Delphinus Butzkopf (sic) Bonnaterre].

Bidens Fischer, 1814, Zoognosia, Tabulis synopticis illustrata, 3: 686 [type species: Delphinus diodon "Hunter" (1787, Philos. Trans.)

(=Delphinus diodon Lacépède, 1804), by monotypy].

Heterodon Blainville, in Desmarest, 1817, Nouv. Dict. Hist. Nat., 9: 175 [included species: Anarnacus (sic) groenlandicus Lacépède (=Monodon spurius Fabricius), Delphinus chemnitzianus Blainville (new name for Balaena rostrata Müller, 1778), Delphinus edentulus Schreber, Delphinus bidentatus Blainville (=Delphinus diodon Lacépède), Delphinus butskode (sic) Blainville (type, here selected=Hyperoodon butskopf Lacépède=Balaena ampullata Forster), Delphinus sowerbensis Blainville (=Delphinus

- bidens Sowerby=Mesoplodon bidens Sowerby), Epiodon urganantus Rafinesque (=incertae sedis), Delphinus densirostris Blainville (= Mesoplodon densirostris Blainville); generic name preoccupied by Heterodon Latreille, 1801, a genus of Reptilia].
- Hyperdordon Gray, 1821, London Medical Repository, 15: 210 [typographical error for Hyperoodon Lacépède; included species: Delphinus edentus (sic) Schreber (=D. edentulus Schreber=Balaena ampullata Forster)].
- Ceto-diodon Jacob, 1825, Dublin Philos. Journ. Sci. Rev. (1825), 1: 72 [type species: Ceto-diodon Hunteri (=Delphinus hunteri Desmarest= Balaena ampullata Forster), by monotypy].
- Anodon Wagler, 1830, Nat. Syst. Amphibien, ftn. 3, p. 34 [possibly a misspelling of Aodon Lesson (=Mesoplodon Wagler) but with included species Delphinus edentulus Schreber (here selected type=Balaena ampullata Forster) and Delphinus butzkopf (sic) Bonnaterre (=Balaena ampullata Forster); generic name preoccupied by Anodon Smith, 1829, a reptile].
- Orca Wagler, 1830, Nat. Syst. Amphibien, p. 34 [included species: Delphinus bidentatus "Hunter" (type by subsequent designation (Iredale and Troughton, 1934, Mem. Australian Mus., 6: 60)=Delphinus bidentatus Bonnaterre=Balaena ampullata Forster), D. demarestii (= Ziphius cavirostris Cuvier)].
- Chænodelphinus Eschricht, 1843, Förhandl. Skandinaviske Naturforsk., Stockholm, 3(July 1842): 655 [substitute name for Hyperoodon Lacépède; taxonomic history; characters]; 1845, Isis von Oken, p. 439 [abstract of original memoir].
- Uperoodon Gray, 1843, List Mamm. Brit. Mus., p. xxiii [misprint for either Hyperoodon Lacépède or Uranodon Illiger; included synonyms (or subgenera?): Uranodon Illiger, Nodus Wagler, Aodon Lesson].
- Chænocetus Eschricht, 1846, Oversigt K. Danske Vidensk. Selsk. Forhandl., Copenhagen, 1845: 17 [new name for Hyperoodon Lacépède; type species: the "Naebhval" (= Balaena ampullata Forster)].
- Chenocetus Gray, 1846, Zoology of the voyage of H. M. S. Erebus and Terror, 1(Mammalia): 52 (in text) [emendation of Chanocetus Eschricht, 1846].
- Hyperhoodon Gervais, 1850, Ann. Sci. Nat., (3), Zool., 14: 2 [emendation of Hyperoodon Lacépède].
- Chenodelphinus Duvernoy, 1851, Ann. Sci. Nat. Paris, (3), Zool., 15: 45 [emendation of Chænodelphinus Eschricht].
- Lagenocetus Gray, 1863, Proc. Zool. Soc. London, 1863: 200 [type species: Lagenocetus latifrons (=Hyperoodon latifrons Gray=Balaena ampullata Forster), by monotypy].
- Lagocetus Gray, 1866, Cat. seals and whales Brit. Mus., pp. 82, 104, 336 [emendation of Lagenocetus Gray].

Hyperaodon Cope, 1869, Proc. Acad. Nat. Sci. Philadelphia, p. 31 [misspelling of Hyperoodon Lacépède; only species mentioned: H. semijunctus Cope, which is a Ziphius].

Type species: Hyperoodon butskopf Lacépède (=Balaena ampullata Forster),

by monotypy.

DISTRIBUTION: For the northern bottle-nosed whale, Hyperoodon ampullatus Forster: the Arctic Ocean, White and Barents Seas, and North Atlantic from Davis Strait and Spitzbergen to the Baltic and Mediterranean Seas on the east, Rhode Island on the west; in North Pacific from Bering Sea to Japanese waters. For the southern bottle-nosed whale, Hyperoodon planifrons Flower: from Antarctic pack ice to Buenos Aires, Bahía Blanca, Argentina, in the South Atlantic, to Valparaiso (33° S.) and New Zealand in the South Pacific, and to southern and western Australia in the Indian Ocean.

## Hyperoodon planifrons Flower

Hyperoodon planifrons Flower, 1882, Proc. Zool. Soc. London, 1882: 392; 1885, List Cetacea Brit. Mus., p. 10 [type history].-Moreno, 1895, Anal. Mus. La Plata, Zool., 3: 4, fig. 1 (skull, copy of type fig.), pl. 2 (skull) [S. Atlantic: Argentina (near mouth Arroyo Sauce Grande, Buenos Aires; Chubut; Bahía Santa Cruz, Santa Cruz); characters; comparisons; osteology; Hyperoodon Burmeisterei Moreno, 1888, (a nomen nudum?) treated as a synonym].—Lahille, 1899, Primera reunión del Congreso Latinoamericano, 3: 199 [S. Atlantic: Argentina (Buenos Aires; Chubut; Santa Cruz)].—True, 1910, Bull. U.S. Nat. Mus., 73: 77 [distribution].—Lahille, 1914, Enumeración y zoogeografía de los mamíferos de la República de Argentina, p. 32 [S. Atlantic: Argentina (Santa Cruz)].-Hale, 1931, Rec. S. Australian Mus., 4(3): 291, figs. 1, 2 (animal), figs. 3-10 (skull), fig. 11 (teeth), fig. 12 (skeleton), figs. 13-16 (vertebrae), fig. 17 (sternum), fig. 18 (scapula), fig. 19 (forelimb bones) [Indian: Australia (Port Victoria, Yorke Peninsula)].—Iredale and Troughton, 1934, Mem. Australian Mus., 6: 60 [S. Pacific-Indian: Australia (southern and western seas)].—Fraser, in Norman and Fraser, 1938, Giant fishes, whales and dolphins, p. 270 [general characters].—Cabrera and Yepes, 1940, Mamíferos sudamericanos, p. 304 [S. Atlantic: Argentina; characters].—Fraser, 1945, Discovery Rep., 23: 19, figs. 1-3 (skull), fig. 4 (teeth), figs. 5-11 (skeletal details) [Indian: Australia (Port Victoria, Yorke Peninsula); S. Atlantic: Argentina (Buenos Aires; Chubut; Bahía de Santa Cruz); South Georgia; South Orkneys; characters].—Yañez, 1948, Rev. Biol. Marina Valparaiso, 1: 117 [S. Pacific: Chile; characters].— Hamilton, 1952, Comun. Zool. Mus. Hist. Nat. Montevideo, 4(66): 3 [S. Atlantic: Falkland Islands].—Mann, 1957, Invest. Zool. Chilenas, 4: 101 [S. Pacific: Chile; key characters].—Budker, 1959, Whales and whaling, p. 29 [classification; vernacular name: "Antarctic bottle-nose"].—Deraniyagala, 1960, Spolia Zeylanica, 29: 82, fig. 2 (skull) [Indian: Ceylon (Colombo Harbor)].—McCann, 1961, Rec. Dominican Mus., Wellington, New Zealand, 4(3): 21, pl. 1 (animal, teeth, ramus, scapula), pl. 2 (rostrum, mandible) [S. Pacific: New Zealand (Brown's Beach near Winchester, South Island; East Cape Beach, North Island); characters; distribution]; 1962, Rec. Dominican Mus., 4(10): 96 [characters; comparisons; taxonomic history; *Mesoplodon pacificus* Longman a synonym].—Clarke, 1962, Norsk Hvalf.-Tid., 51: 271, 279 [S. Pacific: Chile (33°15′ S., 73°27′ W.)].—

H[yperoodon] planifrons, Kellogg, 1940, Nat. Geogr. Mag., 77(1): 68 (in text) [Antarctic; Indian: Australia].

Hyperoodon planifronts [sic], Lahille, 1905, Rev. Jardin Zool. Buenos Aires, 1905: 68 [misprint for H. planifrons].

Hyperoodon Burmeisterei Moreno, 1895, Anal. Mus. La Plata, Zool., 3: 4 [a nomen nudum attributed to "Moreno, 1888" in the synonymy of Hyperoodon planifrons].

Mesoplodon pacificus Longman, 1926, Mem. Queensland Mus., 8: 269, pl. 43 (skull) [Indian: Australia (type locality: off Mackay, eastern Queensland); type, skull only in Queensland Museum, no. J. 2106; collected 1882 and presented by E. W. Rawson].—Raven, 1937, American Mus. Novit., 905: 22 [characters; comparisons; regarded as a "variety" of M. mirus Moore, 1960, American Mus. Novit., 1993: 1 [comparisons; regarded as a distinct species].

Hyperoodon rostratum [sic], Liouville (not Müller), 1913, Deuxième Exped. Antarctique Française, 1908–1910, pp. 1, 142, pl. 6, figs. 1, 2 (animal) [part; Antarctic; characters; habits].—Wilson, 1907, Nat. Antarctic Exped. Brit. Mus., 2: 5, fig. 3 (animal, dorsal outline and silhouette) [Antarctic; sight records].—Bruce, 1915, Scottish Nat. Antarctic Exped., Zool., 4(19): 487 [Antarctic; sight records, 58°–74° S.].

Hyperoodon rostratus, Lillie (not Müller), 1915, British Antarctic (Terra Nova) Exped., 1910, Zool., 1(3): 118 [Antarctic: 62° S., 162°03′ E.; 69°51′ S., 166°17′ W.].

Hyperoodon sp., Racovitza, 1903, Expédition Antarctique Belgique, Cetacea, p. 42 [Antarctic: sight records, 69°54′ S.–70°41′ S., 82°35′ W.–93°57′ W.].

Ziphius cavirostris indicus, Deraniyagala (part, not Van Bénéden), 1945, Spolia Zeylanica, 24: 114 [Indian: Ceylon].

Type: Waterworn and mutilated cranium, British Museum (Natural History), no. 1814*a*–82.3.24.1.

Type locality: Lewis Island, Dampier Archipelago, Western Australia. Distribution: From South Atlantic: at Bahía Blanca, Buenos Aires, Argentina (39° S.); Indian Ocean: at Ceylon, southern and western Australia (20° S.); South Pacific: at New Zealand and Valparaiso, Chile

(33° S.), southward to pack ice (cf. record 77°32′ S., 173°22′ W., in Racovitza, 1903, Exped. Antarctique Belgique, Cet., p. 115, ex Gray, 1892, Deutsche Geogr. Blatter, Bremen, 15: 140–151).

# Hyperoodon ampullatus Forster

"Bottle-head" or "Flounders-head" Dale, 1732, History and antiquities of Harwich and Dovercourt, London, ed. 2, pp. 411–412, fig. 14 (animal) [N. Atlantic: England (Maldon, Essex); stranded above the bridge, Sept. 23, 1717].

"Beaked whale," Pennant, 1766, British zoology, 3: 41, 59, pl. 5 fig. 1 ("bottle-head whale" ex Dale) [N. Atlantic: England (Maldon, Essex)].

"Bottle-nosed whale," Hunter, 1787, Philos. Trans. Roy. Soc., 77(1): 373, 447, pl. 19 (animal) [N. Atlantic: England (above London Bridge, Thames River)].

"Deux cétacés échoués vers Honfleur," Baussard, 1789, Journ. Phys., 34: pl. 10 (animals, female and young), pl. 11 (skull of adult) [N. Atlantic: France (near Honfleur); characters of adult and juvenal stranded Sept. 19, 1788].

Balæna ampullata Forster, 1770, in Kalm, Travels into North America, 1:18, ftn.

Hyperoodon ampullatus, Rhoads, 1902, Science, n.s., 15: 756 [antedates Balaena rostrata Müller, 1776].—U.S. Navy Hydrographic Office, 1958, Oceanographic atlas of the polar seas, 2: maps 115–126 [seasonal concentrations and movements].—Fraser and Purves, 1960, Bull. Brit. Mus. (Nat. Hist.), Zool., 7: 39, 80, pl. 8 (skull) [auditory system].

Balæna rostrata Müller, 1776, Zoologiae Danicae prodromus, p. 7 [name based on bibliographic references to the North Atlantic "nebbehval" or "butskopf" of Danish whalers].—Chemnitz, 1779, Beschaft. Berlinischen Gesellsch. Naturf. Fr., 4: 183 [N. Atlantic: Spitzbergen; stranded May 26, 1777].

Hyperoodon rostratus, Van Bénéden and Gervais, 1880, Ostéographie des cétacés, p. 356, pls. 18, 19 (skeleton) [characters; taxonomic history].

H[yperoodon] rostratus, Nishiwaki, 1957, Coll. Rep. Fish. Sci., Univ. Tokyo,
p. 150 [N. Pacific: between Kuriles and Kamchatka; whalers' records;
measurements of pregnant female; Berardius bairdi of authors (cf. Omura, Fujino and Kimura, 1955, Sci. Rep. Whales Res. Inst., Tokyo,
60: 89); no specimens preserved in Japan].

Hyperoodon rostratum, Van Bénéden, 1888, Mem. Cour. Autr. Mém. Acad. Roy. Belgique, 41: 53 (separate) [history; characters; habits; distribution; whaling; specimens; parasites].

D[elphinus] Bidentatus Bonnaterre, 1789, Tableau encyclopédique cétologie, p. 25, pl. 11, fig. 3 (Hunter's "bottle-nosed whale") [N. Atlantic: England (type locality: Thames River); name based on the "bottle-nosed whale" of Hunter].

- Delphinus butskopf Bonnaterre, 1789, Tableau encyclopédique cétologie, p. 25 [N. Atlantic: France (type locality: near Honfleur); name based on the Honfleur whale described by Baussard; type skull in Caen museum].
- Hyperoodon butskopf, Lacépède, 1804, Hist. Nat. Cétacées, pp. xliv, 319 [type of Hyperoodon Lacépède; characters].—Sonnini (Lacépède), 1804, Hist. Nat. Cétacées, pp. 42, 438 [characters; classification].
- Delphinus Butskode [sic], Blainville, in Desmarest, 1817, Nouv. Dict. Hist. Nat., 9: 176 [emendation of D. butskopf Bonnaterre, 1789].
- H[yperoodon] Butzkopf [sic], F. Cuvier, 1836, Hist. Nat. Cétacés, p. 241, pl. 9, figs. 1–3 (skull), pl. 17, fig. 1 (animal ex Baussard) [characters; taxonomic history].
- Hyperoodon Butzkopf [sic], Gray, 1850, Cat. Mamm. Brit. Mus., Cetacea, p. 63 [characters; synonymy].
- H[yperoodon] butzkoff [sic], Beddard, 1900, Book of whales, p. 222 [lapsus for butskopf Lacépède].
- Delphinus bidens Shaw, 1801, Gen. Zool., 2(2): 514 [type, the "bottlenosed whale of Dale".]—Schreber, 1802 [?], Säugthiere, pl. 346 ("bottlenosed whale" of Hunter) [type, the animal figured under the technical name].
- D[elphinus] bidens, Turton, 1807, British Fauna, p. 17 [name based on the "bottle-nosed whale" of Hunter].
- H[yperoodon] bidens, Fleming, 1828, History of British animals, p. 36 [name based on the "bottle-head" of Dale, the "bottle-nose" of Hunter, Physeter bidens Sowerby (=Mesoplodon bidens Sowerby), and other accounts not cited; name here restricted to the "bottle-nose" of Hunter].
- Hyperoodon bidens, Owen, 1853, Descr. Cat. Ostéol. Ser. Mus. Roy. Coll. Surgeons, 2(Mamm. Placent.): 448 [skeleton of Hunter's "bottlenosed whale," no. 2479 of museum collection].
- Hyperadon [sic] bidens, J. A. Allen, 1869, Bull. Mus. Comp. Zool., 1(8): 205 [N. Atlantic: U.S.A. (North Dennis, Massachusetts)].
- Delphinus? edentulus Schreber, 1802 [?], Säugthiere, pl. 347 (Honfleur whale ex Baussard, 1789, with technical name for caption) [type, the animal figured, no text].
- D[elphinus (Chaenodelphinus)] edentulus, Wagner, 1846, Schreber's Säugthiere, 7: 360 [characters; taxonomic history; synonyms: rostrata Wesmail, Chemnitz (=of Müller 1776), butzkopf (sic), Baussard, Bonnaterre, Lacépède, honfloriensis Lesson, hunteri Jacob, Gray, diodon Lacépède, bidens (not Sowerby), hyperoodon Desmarest, dalei Rapp (=Mesoplodon bidens Sowerby), bidentatus Thompson (=of Bonnaterre)].
- Delphinus diodon Lacépède, 1804, Nat. Hist. Cétacées, pp. xliii, 309, pl. 13, fig. 3 ("bottle-nosed whale" ex Hunter) [name based on the "bottle-nosed whale" of Hunter].—Sonnini (Lacépède), 1804, Nat. Hist.

- Cétacés, pp. 41, 426, pl. 5, fig. 2 ("bottle-nosed whale ex Hunter") [characters].
- Delphinus chemnitzianus Blainville, in Desmarest, 1817, Nouv. Dict. Hist. Nat., 9: 175 [N. Atlantic: Spitzbergen (type locality); name based on Balaena rostrata of Chemnitz, 1779].
- Hyperoodon borealis Nilsson, 1820, Skandinavisk fauna, 1: 404 [substitute name for the "bottle-head whale" of authors; part synonyms: Balaena rostrata Pontopiddian, "beaked whale" Pennant, Delphinus edentulus Schreber]; 1847, Skandinavisk fauna, 1: 622 [N. Atlantic: Scandinavian waters; characters].
- Delphinus hunteri Desmarest, 1822, Mammalogie, 2: 520 [name based on the "bottle-nosed whale" of Hunter].
- Ceto-diodon Hunteri Jacob, 1825, Dublin Philos. Journ. Sci. Rev., 1825, 1:72 [N. Atlantic: Ireland (type locality: Killiney, near Dublin); type stranded September 1825; type skeleton and anatomical parts in the Museum, Royal College of Surgeons, Dublin].
- Delphinus hyperoodon Desmarest, 1822, Mammalogie, 2: 521 [new name for Delphinus butskopf Bonnaterre, based on the "dauphin de Honfleur" of Baussard].
- Hyperoodon honfloriensis Lesson, 1828, Complément des oeuvres de Buffon, pp. 137, 140 [new name for *Delphinus butskopf* Bonnaterre and Lacépède based on the Honfleur whale of Baussard].
- Delphinus quadridens Burguet, 1843, Actes Soc. Linn. Bordeaux, 13: 304 [N. Atlantic: France (type locality: Arcachon); type a skeleton, the mandible only originally in the defunct Museum Rodrigues, Bordeaux, now missing].
- Hyperoodon latifrons Gray, 1846, Zoology of the voyage of H. M. S. Erebus and Terror, 1(Mammalia): 27, pl. 4 (skull) [N. Atlantic: Scotland (type locality: Orkney Islands); type a skull only].—Flower, 1885, List Cetacea Brit. Mus., p. 10 [type "an imperfect cranium, and considerable portion of skeleton; very old male," Brit. Mus., no. 1378c].
- Lagenocetus latifrons, Gray, 1866, Cat. seals and whales Brit. Mus., p. 339 [characters].
- Lagocetus [sic] latifrons, Gray, 1866, Cat. seals and whales Brit. Mus., p. 82 (in text) [characters].
- H[yperoodon] Baussardi Duvernoy, 1851, Ann. Sci. Nat., (3), 15: 67 [name based primarily on the "butzkopf" or "dauphin de Honfleur" of Baussard].

Type: Name based on the bottle-nosed whales seen at sea by Kalm "everywhere in the ocean from the channel to the very neighborhood of America," and, basically, on Pennant's description of Dale's "bottle-head whale" found stranded in 1717.

Type locality: Maldon, Essex, England, the locale of Dale's specimen.

DISTRIBUTION: Arctic seas to Mediterranean and Rhode Island in the North Atlantic, and to the Bering Sea and Japan in the North Pacific.

# Suborder MYSTICETI Family ESCHRICHTIDAE

### Genus ESCHRICHTIUS Gray

Cyphonotus Gray, 1850, Cat. Mamm. Brit. Mus., Cetacea, p. 18 [subgenus of Balaena; type species: Balaena gibbosa Erxleben, by monotypy; generic name preoccupied by Cyphonotus Fischer, 1823, a beetle, Guérin-Meneville, 1838, a beetle; Cyphonotus Rafinesque, 1815, is a nomen nudum].

Eschrichtius Gray, 1864, Ann. Mag. Nat. Hist., (3), 14: 350 [subgenus of Megaptera; included species: Balaenoptera robusta Lilljeborg (type=Balaena gibbosa Erxleben), Megaptera novaezealandiae Gray (=Megaptera novaeangliae Borowski)]; 1866, Cat. seals and whales Brit. Mus., p. 131 [included species: Eschrichtius robustus Lilljeborg].—Fraser and Purves, 1960, Bull. Brit. Mus. (Nat. Hist.), Zool., 7: 39, 85, 102, fig. 15 (pterygoid sinus), fig. 22 (air sac system), fig. 26 (table) [auditory system; classification].

Rhachianectes Cope, 1869, Proc. Acad. Nat. Sci. Philadelphia, 21: 15 [type species: Agaphelus glaucus Cope (= Balaena gibbosa Exrleben), by monotypy].—Winge, 1942, Interrelat. Mamm. Gen., 3: 308 [characters; classification].

Rachianectes Trouessart, 1898, Cat. Mamm., p. 1087 [misspelling of Rhachianectes Cope].

Rhachionectes [sic], Winge, 1942, Interrelat. Mamm. Gen., 3: 239 [misspelling of Rhachianectes Cope].

Type species: Balaena gibbosa Erxleben, by monotypy.

DISTRIBUTION: Arctic Ocean and North Pacific from 72° N. to Jalisco, Mexico, on the east, Korea and Japan on the west; also formerly in the North Atlantic.

The report of "Rachianectes glaucus" stranded in Ceylon (Deraniyagala, 1948, Spolia Zeylanica, 25: 61) is based on secondhand information and certainly refers to a balaenopterid.

# Eschrichtius gibbosus Erxleben

"Scrag whale" Dudley, 1725, Philos. Trans. Roy. Soc. London, pp. xxxiii, 259.

[Balana] gibbosa Erxleben, 1777, Syst. Reg. Anim., p. 610.

Eschrichtius gibbosus, Van Diense and Junge, 1937, Temminckia, 2: 181 [classification and nomenclature].—U.S. Navy Oceanographic Office,

1958, Oceanographic atlas of the polar seas, figs. 115–126 (maps) [concentrations and movements].—Hall and Kelson, 1958, Mammals of North America, p. 833, fig. p. 833 (animal), fig. 459 (skull) [taxonomic discussion].—Hubbs, 1960, Syst. Zool., 9: 145 [distribution].—Tomilin, 1962, Cetacea of the U.S.S.R., Fauna U.S.S.R., 79: 89, fig. 23 (animal), fig. 24 (skull) [distribution; migrations; natural history; economics].

Balana boops, Kerr (not Linnaeus), 1792, Animal kingdom, p. 358 [description based on the "scrag whale" of Dudley].

Balænoptera robusta Lilljeborg, 1861, Forh. Skand. Naturf. Ottende Møde, Kopenhagen (1860), 8: 602 [N. Atlantic: Sweden (type locality: Gräsö, Roslagan, Upland); type, a partial skeleton found buried about 840 feet from beach; in University Museum of Upsala].

Eschrichtius robustus, Gray, 1865, Proc. Zool. Soc. London, 1865: 42, fig. (cervical vertebra) [osteological characters]; 1866, Cat. seals and whales Brit. Mus., p. 133 [characters; history].

Agaphelus glaucus Cope, 1868, Proc. Acad. Nat. Sci. Philadelphia, 20: 160, 225 [N. Pacific: U.S.A. (type locality: "Coast of California"); type, baleen of one side in the Museum of Essex Institute, Salem, Massachusetts; additional specimens (op. cit., p. 225), one skeleton, and one nearly entire individual "one of them [from] near Monterey"].

Rhachianectes glaucus, Cope, 1869, Proc. Acad. Nat. Sci. Philadelphia, 21: 15, figs. 7, 8 (sketches of animal) [classification].—Andrews, 1914, Mem. American Mus. Nat. Hist., 1(5): 229, pls. 19–24 (animal), pls. 25–26 (skull), figs. 1–22 (skeletal parts) [history; anatomy; taxonomy].—Kellogg, 1928, Quart. Rev. Biol., 3: 190, fig. 19 (skull) [characters; relationships].—Gilmore, 1958, Story of the gray whale (privately published), 16 pp., text figs. (animal, head, mouth, baleen, fins, flukes, spout, diving positions) [N. Pacific; characters; habits; migrations].

Eschrichtius glaucus, Maher, 1961, Arctic, 13: 257, fig. 2 (animal) [N. Pacific: U.S.A. (Wainwright, Alaska; Point Barrow, Alaska); movements; history].—Norris and Prescott, 1961, Univ. California Publ. Zool., 63: 295, 358 [N. Pacific: U.S.A. (California, San Pedro Channel); behavior; locomotion].

"California Gray whale," Gilmore, 1960, Norsk Hvalf.-Tid., 49(9): 409 [census; migration].

Balaenoptera physalus, Cabrera (part, not Linnaeus), 1961, Rev. Mus. Argentino Cienc. Nat. "Bernardino Rivadavia," 4: 621 [Balaenoptera robusta Lilljeborg in synonymy only].

Type: Name based on the "scrag whale" of Dudley.

Type locality: Coast of New England.

Distribution: The same as for the genus.

# Family BALAENOPTERIDAE

## Genus BALAENOPTERA Lacépède

Balænoptera Lacépède, 1804, Nat. Hist. Cétacées, pp. xxxvi, 114 [included species: "premier sous-genre," B. gibbar Lacépède (=B. physalus Linnaeus), "second sous-genre," B. jubartes Lacépède (=B. musculus Linnaeus), B. rorqual Lacépède (=B. physalus Linnaeus), B. acutorostrata Lacépède].—Gray, 1846, Zoology of the voyage of H. M. S. Erebus and Terror, 1(Mammalia): 50 [included species: B. rostrata Gray (=B. acutorostrata Lacépède), B. antiquorum Fischer (=B. physalus Linnaeus), B. boops Linnaeus (=B. physalus Linnaeus), B. australis Lesson (=B. physalus Linnaeus)]; 1847, Proc. Zool. Soc. London, 1847: 88–90 ["Balaenoptera rostrata . . . considered as the type of Balaenoptera"].

Balaenoptera, Kellogg, 1928, Quart. Rev. Biol., 3: 33 et seq., 190 [history; relationship].—Winge, 1942, Interrelat. Mamm. Gen., 3: 240, 268, 278, 285 [characters; relationship].

Balenoptera Duméril, 1806, Zool. analytique, p. 28 [emendation of Balaenoptera Lacépède].

Phylasus Duméril, 1806, Zool. Analytique, p. 28 [type species: "les physales" (= Balaena physalus Linnaeus)].

Catoptera Rafinesque, 1815, Analyse de la nature, p. 61 [new name for Balaenoptera Lacépède].

Cetoptera Rafinesque, 1815, Analyse de la nature, p. 219 [emendation of Catoptera Rafinesque].

Physalus Gray, 1821, London Medical Repository, 15: 310 [type species: Balaena physalus Linnaeus, by monotypy; name preoccupied by Physalus Lacépède, 1804, for the sperm whale (=Physeter Linnaeus)]; 1846, Zoology of the voyage of H. M. S. Erebus and Terror, 1(Mammalia): 50 [subgenus of Balaenoptera Lacépède; included species: B. antiquorum Fischer (="B. physalus Linn. B. Gibbar Lacép.")].—Flower, 1865, Proc. Zool. Soc. London, 1864: 392 [type species: P. antiquorum Gray (=Balaenoptera physalus Linnaeus; type designation obviously based on Physalus Gray 1846, not 1821)].—Gray, 1866, Cat. seals and whales Brit. Mus., p. 114, 139 [characters].

Boops Gray, 1821, London medical repository, 15: 310 [type species: Balaena boops Linnaeus (=B. physalus Linnaeus), by monotypy; generic name preoccupied by Boops Cuvier, 1817, a genus of fish].

Physalis Fleming, 1822, Philosophy of zoology, 2: 206 [type species: the "Finner" (=Balaena physalus Linnaeus), by monotypy; name preoccupied by Physalis Lamarck, a genus of coelenterate].

Balenopterus Cuvier, 1829, Dict. Sci. Nat., Paris, 59: 518 [emendation of Balaenoptera Lacépède].

Mysticetus Wagler, 1830, Nat. Syst. Amphibien, p. 33 [included species: Balaena boops Linnaeus (type, by subsequent designation (cf. Palmer,

1904, Index Gen. Mamm., p. 444) = Balaena physalus Linnaeus, young), B. rostrata Linnaeus (ex Schreber, Säugthiere, p. 485, pl. 13) (= Balaenoptera acutorostrata Lacépède), Balaenoptera australis Lesson (= Eubalaena glacialis australis Desmoulins)].

Rorqual Voigt, 1831, in Cuvier, Das Thierreich, 1: 342 [subgenus of Balaena Linnaeus; included species: B. boops ("die Jubarte"=Balaenoptera musculus), B. musculus ("der Rorqual"=B. physalus Linnaeus, type by virtual tautonomy)].—Palmer, 1904, Index Gen. Mamm., p. 612 [name attributed to G. Cuvier, 1829, Règne animal, ed. 2, 1: 298, wherein only the French vernacular plural "rorquals" is used for a subdivision of the genus Balaena Linnaeus].

Rorqualus Cuvier, 1836, Hist. Nat. Cétacés, p. 303 [included species: R. boops (=Balaenoptera musculus Linnaeus), R. musculus (=B. physalus Linnaeus, type by virtual tautonomy), R. antarctica (=Megaptera novaeangliae Borowski)].—Hamilton, 1837, Jardine's Naturalist's Library, Mammalia, 6(whales): 125 [included species: Rorqualis (sic) borealis Lesson, Rorqualus minor "Knox" (=Balaenoptera acutorostrata Lacépède), Rorqualus australis Cuvier (=Eubalaena glacialis australis Desmoulins)].—Gray, 1846, Zoology of the voyage of H. M. S. Erebus and Terror, 1(Mammalia): 51 [subgenus of Balaenoptera Lacépède; included species: B. boops Linnaeus].

Ptychocetus Gloger, 1842, Hand-und Hilfsbuch Naturgeschichte, 1: xxxiv, 174 [included species: Balaenoptera borealis, B. boops, B. rostrata,

B. musculus Linnaeus (here designated type)].

Pterobalæna Eschricht, 1849, K. Danske Vidensk. Selsk. Skrift. Nat. Math., Afd., Copenhagen, (5), 1: 108 [type species: the "finhval" of the northern seas (= Balaena physalus Linnaeus)].

Ogmobal ana Eschricht, 1849, K. Danske Skrift. Nat. Math. Afd., (5), 1: 108 [type species: the "furehvaler eller Rörhvaler" of the northern

sea (= Balaena physalus Linnaeus)].

Benedenia Gray, 1864, Proc. Zool. Soc. London, 1864: 211 [type species: Benedenia knoxii Gray (= Balaena physalus Linnaeus)]; 1866, Cat. seals and whales Brit. Mus., pp. 114, 135 [characters; name preoccupied by Benedenia Diesing, 1858, a genus of Vermes].

Sibbaldus Gray, 1864, Proc. Zool. Soc. London, 1864: 222 [included species: laticeps Gray (= Balaenoptera borealis Lesson), S. borealis Gray (not Lesson) (= Balaena musculus Linnaeus)].—Kellogg, 1928, Quart. Rev. Biol., 3: 191 [cranial characters].

Sibbaldius Flower, 1865, Proc. Zool. Soc. London, 1864: 392 [type by subsequent selection: S. laticeps Gray (= Balaenoptera borealis Lesson)].—Gray, 1866, Cat. seals and whales Brit. Mus., pp. 114, 169 [characters].

Cuvierius Gray, 1866, Cat. seals and whales Brit. Mus., pp. 114, 164 [type species: Cuvierius latirostris (=Physalus latirostris Flower=Balaena musculus Linnaeus), by monotypy].

- Rudolphius Gray, 1866, Cat. seals and whales Brit. Mus., p. 170 [a subgenus of Sibbaldius (sic) Gray; type species: Sibbaldius laticeps Gray (= Balaenoptera borealis Lesson)].
- Fabricia Gray, 1866, Cat. seals and whales Brit. Mus., p. 382 [type species: Balaenoptera rostrata Fabricius (not Müller) (= B. acutorostrata Lacépède), by monotypy; name preoccupied by Fabricia Blainville 1828, a genus of Vermes].
- Swinhoia Gray, 1866, Cat. seals and whales Brit. Mus., p. 382 [subgenus of Balaenoptera Lacépède; type species: Balaenoptera swinhoei Gray (= Balaena physalus Linnaeus), by tautonomy and monotypy].
- Flowerius Lilljeborg, 1867, Nova Acta Reg. Soc. Sci. Upsala, (3), 6: 6, 11 [type species: Flowerius gigas Eschricht, (= Balaena musculus Linnaeus), by monotypy].
- Agaphelus Cope, 1868a, Proc. Acad. Nat. Sci. Philadelphia, 20: 159 [included species: "Balaena gibbosa of Erxleben" (= Balaenoptera acutorostrata Lacépède), type by original designation; Agaphelus glaucus Cope (= Balaena gibbosa Erxleben)]; 1868b, Proc. Acad. Nat. Sci Philadelphia, 20: 223 [characters].—Hershkovitz, 1961, Fieldiana, Zool., 39: 560 [taxonomic status].
- Stenobalæna Gray, 1874, Ann. Mag. Nat. Hist., (4), 14: 305 [type species: Stenobalæna xanthogaster Gray (= Balaena physalus Linnaeus), by monotypy].
- Dactylaena Gray, 1874, Ann. Mag. Nat. Hist., (4), 13: 449 [subgenus of Balaenoptera Lacépède; type species: Balaenoptera Huttoni Gray (= Balaenoptera acutorostrata Lacépède), by monotypy].
- Eubalaenoptera Aclogue, 1900, Faune de France, 1(Mammifères): 83 [subgenus of Balaenoptera Lacépède; included species: sibbaldi Gray (=Balaena musculus Linnaeus, type, here selected), rostrata Fabricius (=B. acutorostrata Lacépède), borealis Cuvier (=B. borealis Lesson), musculus (=B. musculus authors, not Linnaeus=B. physalus Linnaeus)].

Type species: Balaenoptera gibbar Lacépède (= Balaenoptera physalus Linnaeus) by original designation and monotypy (i.e., "première espèce" of the "premier sous-genre," which included only the first species; cf. Hershkovitz, 1961, Fieldiana, Zool., 39: 559).

DISTRIBUTION: All seas.

## Balaenoptera acutorostrata Lacépède

- Balana rostrata Fabricius, 1780, Fauna Groenlandica, p. 40 [N. Atlantic: Greenland Seas (not of Müller, 1776=Hyperoodon ampullata Forster 1770)].
- Balænoptera rostrata, Van Bénéden and Gervais, 1880, Ostéographie des cétacés, p. 146 [osteography].—Van Bénéden, 1887, Mem. Cour. Acad. Roy. Belgique, 41: 6, 13, 17 [characters; habits; distribution; parasites; collections; synonyms: acutorostrata Lacépède, minor "Knox,"

eschrichtii Rasch, bonaerensis Burmeister, davidsoni Scammon, huttoni Gray].—Turner, 1915, Proc. Roy. Phys. Soc. Edinburgh, 35: 11, figs. 1, 2 (tympanic bone), fig. 3 (foetus) [S. Atlantic: S. Shetlands; Graham Land; tympanic bone].

Balænoptera acuto-rostrata Lacépède, 1804, Nat. Hist. Cétacées, pp. xxxvii, 134, pl. 4, fig. 2 (animal), pl. 8 (animal).—Sonnini (Lacépède), 1804, Nat. Hist. Cétacées, pp. 33, 218 [characters].—Thomas, 1898, Zoologist, (4), 2: 99 [Balaena rostrata Fabricius, 1780, preoccupied by B. rostrata Müller, 1776].—True, 1898, Proc. U.S. Nat. Mus., 21: 635 [Balaena rostrata Fabricius, 1780, "preoccupied" by B. rostrata Müller, 1776 (Zool. Danicae Prodr., p. 7), regarded as unidentifiable].—Racovitza, 1903, Expedition Antarctique Belgique, Cetacea, pp. 40, 56 [distribution: 73° S. to 76° S.; characters; breaching; blowing; diving].— True, 1904, Whalebone whales of the western North Atlantic, pp. 192, 301, pl. 49, fig. 1 (animal) [characters; distribution in North Atlantic].-Lahille, 1905, Rev. Jardín Zool., Buenos Aires, 1905, p. 73 [S. Atlantic]; 1908, Anal. Mus. Nac. Buenos Aires, 16 (ser. 3, no. 9), p. 375, fig. 1 (skull), fig. 2 (vertebrae), pl. 1 (skull) [characters; comparisons].—Liouville, 1913, Deuxième expedition antarctique française, pp. 1, 111, fig. 88 (leaping animal) [taxonomy; history; characters; habits; synonyms: bonaerensis Burmeister, huttoni Gray, racovitzai Lahille].—Lillie, 1915, British Antarctic (Terra Nova) Expedition, 1910, p. 113, pl. 4, figs. 2, 3 (head and mouth of calf), pl. 5 (head and body of calf), pl. 6 ("blowing") [S. Pacific: distribution 52°16' S., to 78°10' S.; Neobalaena marginata Wilson (not Gray) a synonym].-Marelli, 1918, Physis, 4: 327, fig. (stranded animal) [S. Atlantic: Argentina (Estación Rivadavia, Río de La Plata, 3 leagues above Buenos Aires)].—Omura, 1957, Sci. Rep. Whales Res. Inst., Tokyo, 12: 1, figs. 2, 3, 5-10 (bones of postcranial skeleton), pls. 1-4 (skull), pls. 5-8 (ribs, vertebrae) [N. Pacific: Japan (Ayukawa); osteology; davidsoni a synonym].

Balaenoptera acutorostrata, Oliver, 1922, Proc. Zool. Soc. London, 1922: 563 [S. Pacific: New Zealand].—Iredale and Troughton, 1934, Mem. Australian Mus., 6: 58 [S. Pacific: Australia (Tasmania); New Zealand; B. huttoni Gray a synonym].—Fraser, in Norman and Fraser, 1938, Giant fishes, whales and dolphins, p. 231, fig. 65 [characters; habits; distribution].—Kellogg, 1940, Nat. Geogr. Mag., 77(1): 57, pl. 2 (animal), figs. p. 36 (animal blowing) characters; habits; distribution].—Cabrera and Yepes, 1940, Mamíferos sudamericanos, p. 314 [S. Atlantic: Argentina (Río de La Plata); characters; habits].—Mackintosh, 1946, Biol. Rev., 21: 61, 66 [breeding; gestation; growth; food; distribution].—Barnard, 1954, Guide book to South African whales and dolphins, South African Mus. Guide, 4: 13, fig. 5 (animal) [S. Atlantic: South Africa].—Laws, 1956, Nature, London, 178: 194 [length at

sexual and physical maturity].-Mann, 1957, Invest. Zool. Chilenas. 4: 97 [S. Pacific: Chile; key characters].—Taylor, 1957, Proc. Zool. Soc. London, 129: 325, pls. 2, 4, 5, 6 (animal) [S. Atlantic: Graham Land; captive in sea-ice pool].-U.S. Navy Hydrographic Office, 1958, Oceanographic atlas of the polar seas, 2: figs. 115-116 (maps) [concentrations and movements].—Budker, 1959, Whales and whaling, p. 38, pl. 3b (animal) [characters; habits; whaling and regulations].— Fraser and Purves, 1960, Bull. Brit. Mus. (Nat. Hist.), Zool., 7: 22, 35, 111, 114, fig. 28 (ear dissection), pl. 7 (pterygoid), pl. 50 (middle ear) [auditory system].—Tomilin, 1962, Cetaceans of the U.S.S.R., Fauna U.S.S.R., 79: 54, fig. 1 (animal), fig. 2 (skull) [U.S.S.R. (distribution); movements; migrations; natural history; economics].— Sergeant, 1963, Journ. Fish. Res. Board, Canada, 20(6): 1489 [N. Atlantic: Canada (Newfoundland; southwestern Hudson Strait; Ungava Bay); fisheries; biology; age determination].—Zemsky and Tormosov, 1964, Norsk Hvalf.-Tid., 53(11): 302 [comparison and management of individuals of Northern and Southern hemispheres].— Layne, 1965, Bull. Florida State Mus., 9(4): 137 [N. Atlantic: Gulf of Mexico (Pine Island); identification based on photograph of stranded animal].

Balaena minima, Rapp, 1837, Die Cetaceen, p. 52 (in text) [new name for Balaena rostrata Fabricius].

R[orqualus] boops, F. Cuvier (part, not Linnaeus), 1836, Hist. Nat. Cétacés, p. 321, pl. 20, fig. 1 (animal) [part, description (p. 322) of juvenal ex Geoffroy de Valognes].

Rorqualus Minor Hamilton, 1837, Jardine's Naturalist's Library, Mammalia, 6(Whales): 142, pl. 7 (animal) [N. Atlantic: Scotland (type locality: Firth of Forth); name based on the Balaena rostrata of Knox, 1834 (Edinburgh New Philos. Journ., 18: 197)].

Pterobalæna minor, Eschricht, 1849, Zoologisch-anatomisch-physiologische Untersuchungen über die nordischer Wallthiere, Leipzig, pp. 109, 169, pls. 5–7 [work not seen].

Balæna minimus borealis Knox, 1838, Catalogue of anatomical preparations illustrative of the whale, p. 14 [N. Atlantic: Scotland (type locality: Firth of Forth); type, female stranded February 1834; osteology; anatomy: skeleton exhibited in London].

Balænoptera Eschrichtii Rasch, 1845, Nyt Magazin Naturvidensk., 4: 123 [N. Atlantic: Sweden (type locality); name based on the "Vaaghvalen" of Eschricht (Kong. Dansk. Vidensk. Selsk., 11: 286–299, pls. 1, 2)].

Pterobalæna minor groenlandica Eschricht, 1849, Kongl. Dansk. Vidensk. Selsk. Skrift., 1: 109 [N. Atlantic: Greenland (type locality); new name for Greenland variety of B. rostrata Fabricius].

[Pterobalæna minor] bergensis Eschricht, 1849, Kongl. Dansk. Vidensk. Selsk. Skrift., 1: 109 [N. Atlantic: Norway (type locality: Bergen); new name for Norwegian variety of B. rostrata Fabricius].

Balænoptera microcephala Gray, 1850, Cat. Mamm. Brit. Mus., Cetacea, p. 32 [Brandt ms. name in synonymy of Balaenoptera rostrata].

P[terobalæna] N[ana] pentadactyla Barkow, 1862, Das Leben der Walle... pp. 5-17 (name p. 17) [type locality: unknown; type a skeleton in Breslau Museum].—Gray, 1866, Cat. seals whales Brit. Mus., pp. 193-194 [type skeleton a composite of a Balaenoptera rostrata with forelimbs of a Balaena (type here restricted to main part of skeleton)].

Pterobalæna pentadactyla, Flower, 1865, Proc. Zool. Soc. London, 1864: 394,

ftn. [genuineness of type skeleton doubtful].

P[terobalæna] N[ana] tetradactyla Barkow, 1862, Das Leben der Walle, p. 17 [new name for P. minor Eschricht].

Balænoptera bonærensis Burmeister, 1867a, Actas Soc. Paleo., Buenos Aires, p. xxiv [S. Atlantic: Argentina (type locality: near Belgrano, Buenos Aires)]; 1867b, Anal. Mus. Público, Buenos Aires, 1: 310 [S. Atlantic: Argentina (type locality: near Belgrano, Río de La Plata at mouth of Riachuelo Medrano); type a complete skeleton, Museo Público de Buenos Aires]; 1868, Proc. Zool. Soc. London, 1867: 707, fig. 1 (atlas), fig. 2 (cervical vertebrae), fig. 3 (sternum) [S. Atlantic: Argentina (near Belgrano, Buenos Aires); type skeleton in Buenos Aires Museum; type description]; 1872, Ann. Mag. Nat. Hist., (4), 10: 413 [characters]; 1881, Erlaut. Fauna Argentina, p. 3, pls. 2, 5 (skull), pls. 3, 4, 6, 7 (postcranial bones) [characters].— Figueira, 1894, Anal. Mus. Nac. Montevideo, 2: 12 (separate) [S. Atlantic: Argentina (Río de La Plata from mouth to La Colonia)].— Lahille, 1899, Primera reunión del Congreso Latinoamericano, 3: 197; 1905, Rev. Jardín Zool. Buenos Aires, 1905, p. 74 [S. Atlantic].-Williamson, 1959, Proc. Zool. Soc. London, 133, (1), pl. 1, fig. 1 (animal); pl. 1, fig. 2 (head); pl. 2, fig. 1 (baleen); pl. 2, fig. 2 (animal) [62° S., 50° E.; 61° S., 50° E.; 58° S., 03° W.; characters; comparisons; food; possibly a race of acutorostrata; huttoni Gray a synonym]; 1961, Norsk Hvalfangst-tidende, 50(4): 133, figs. (same as in preceding citation) [characters; comparisons; conclusions (same as in preceding citation)].

Balaenoptera bonaerensis, Kasuya and Ichibara, 1965, Sci. Rep. Whales Res. Inst., 19: 37, figs. 2, 3 (animals), fig. 5 (baleen) [Antarctic; characters; variation; comparisons with B. acutorostrata].

Balaenoptera acutorostrata bonaerensis, Deraniyagala, 1960, Spolia Zeylanica, 29: 84 [Indian: Ceylon].

Balænoptera Davidsoni Scammon, 1872, Proc. California Acad. Sci., 4: 269 [N. Pacific: U.S.A. (type locality: Admiralty Inlet, Puget Sound, Washington); type skull in U.S. National Museum, no. 12177, Collected October 1870 by C. M. Scammon].

Balaenoptera acutorostrata davidsoni, Tomilin, 1957, Animals of eastern Europe and northern Asia, 9: 274 [a weakly defined subspecies].

B[alaenoptera] a[cutorostrata] davidsoni, Norris and Prescott, 1961, Univ.

California Publ. Zool., 63: 361 [N. Pacific: Bering Sea to Baja California; behavior; morphology; reproduction].

Balænoptera Huttoni Gray, 1874, Ann. Mag. Nat. Hist., (4), 13: 448, 450, pl. 18 (nasal, cervical vertebrae, hyoid, sternum, scapula, forelimb bones) [S. Pacific: New Zealand (type locality: Otago Head Bay); type skeleton British Museum (Natural History); Physalus antarcticus Hutton, 1874 (not Gray), a synonym].—Flower, 1885, List Cetacea Brit. Mus., p. 7 [type an articulated skeleton, British Museum, no. 74.4.13.2; received from Prof. Hutton].—Williamson, 1959, Proc. Zool. Soc. London, 133: 140 [baleen of type; comparisons].

B[alænoptera] D[actylæna] Huttoni, Gray, 1874, Ann. Mag. Nat. Hist., (4), 13: 449 [type of subgenus Dactylæna Gray].

Sibbaldius mondinii Capellini, 1877, Mem. Accad. Sci. Inst. Bologna, (3), 7: 423 [work not seen; N. Atlantic: Adriatic Sea (type locality)].

B[alaenoptera] Racovitzai Lahille, 1905, Rev. Jardín Zool. Buenos Aires, 1905, p. 74 [name based on two Antarctic specimens of B. acutorostrata described by Racovitza (1903, Exped. Antarctique Belgique, p. 57) as white-jawed Euphausia eaters].

Balaena microcephala Tomilin, 1957, Animals of eastern Europe and northern Asia, 9(Cetacea): 239 [name in synonymy of Balaenoptera acutorostrata cited as of Holböll, 1849, "Om Grönlandernes Kiperkarnak (Balaena). Kroyer's Naturhist. Tidsskr. N. R. Bd. 2." This cited article by Holböll, entitled "Notice over Grønlændernes Kiperkarnak," pp. 308–310, includes no such technical name. According to Van Bénéden (1880, Ostéographie des cétacés, p. 171), the "keporkarnak" of Holböll is a finback (B. musculus of authors=B. physalus Linnaeus), but True (1904, Whalebone whales of western North Atlantic, p. 148) regards the animal as a humpback (Megaptera novæangliae)].

Balaenoptera acutorostrata thalmaha Deranyagala, 1963, Spolia Zeylanica, 30(1): 79, pl. 1 (skull, baleen) [Indian: Ceylon (type locality: Delft); type, skull, cervical vertebrae, four ribs, two baleen plates, Colombo Museum, no. W (Zoological Survey), animal stranded July 12, 1962].

Physalus antarcticus, Hutton (not Gray), in Gray, 1874, Ann. Mag. Nat. Hist., (4), 13: 318 [S. Pacific: New Zealand (Otago Head)].

Neobalæna marginata, Wilson (not Gray), 1904, National Antarctica Exped., 2(Zool., Mammalia): 4, fig. 2 (spouting and diving)].

Balæna gibbosa, Cope (not Erxleben), 1868, Proc. Acad. Nat. Sci. Philadelphia, 20: 159 [N. Atlantic: no precise locality; type of Agaphelus Cope].

Agaphelus gibbosus, Cope (not Erxleben), 1868, Proc. Acad. Nat. Sci. Philadelphia, 20: 224 [N. Atlantic: U.S.A. (Long Beach, Ocean Co., New Jersey); characters]; 1884, American Nat., 18: 1124 [regarded as a misidentified Balaenoptera acutorostrata].—True, 1904, Whalebone whales of the western North Atlantic, p. 103 [history].

'Minke' or 'little piked whale,' Marr, 1962, Discovery Rep., 32: 127 '[krill feeding].

Type: Name based on general accounts by authors and the description of a young individual stranded 1791 near Cherbourg, France.

Type locality: Cherbourg, France.

DISTRIBUTION: In North Atlantic and Arctic: from Spitzbergen, Novaya Zemlya, and Baffin Bay to the Mediterranean and Black Seas and Florida; in South Atlantic: from the Cape of Good Hope on the east and Río de La Plata, Argentina, on the west, southward to the Antarctic ice shelf; in North Pacific: from Siberian waters and Bering Sea to Baja California on the east, and to Sea of Japan and Yellow Sea on the west; in South Pacific: from Australia, New Zealand, and Chile to shelf ice (78° S.); in Indian Ocean: from South Africa to Bay of Bengal and Java.

Remarks: Balaenoptera bonaerensis Burmeister (with huttoni Gray a synonym) is regarded by Williamson (1959, Proc. Zool. Soc. London, 133: 135) as a distinct species confined to the southern hemisphere. The distinguishing characters are gray flippers, 200–230 baleen plates colored white or yellow with dark borders. Individual variation in the color of the flippers and other characters has already been noted by True (1904, Whalebone whales, pp. 192, 209), by Lillie (1915, Terra Nova Exped., Zool., 1(3): 114), Utrecht and Van der Spoel (1962, Zeitschr. Säuget., 27: 217), and others. Color and number of baleen plates are also individually variable, by Williamson's own account.

## Balaenoptera edeni Anderson

Balænoptera edeni Anderson, 1878, Anatomical and zoological research; comprising an account of zoological results of two expeditions to western Yunnan in 1868 and 1875, London, pp. 551–564, figs. 21–25 (vertebrae), fig. 26 (rib), fig. 27 (humerus), fig. 28 (hyoid), pl. 44 (skull, cervical vertebrae)].—Blanford, 1891, Fauna of British India, p. 568 [Indian: Bay of Bengal; characters].—Junge, 1950, Zool. Verh. Rijksmus. Nat. Hist., Leiden, 9; pls. 1–3 (skull), pl. 7 (vertebrae), pl. 8 (atlas; hyoid; scapula) [Indian: Malaya (Pulu Sugi between Singapore and Sumatra); B. brydei Olsen a synonym].—Best, 1960, Norsk Havlf-Tid., 19(5): 201, figs. 1, 2 (animals) [S. Atlantic: South Africa (Saldanha Bay); habits; reproduction].

B[alænoptera] edeni, Nishiwaki, 1957, Coll. Rep. Fish. Sci., Tokyo Univ., p. 149 [N. Pacific: Japan].

Balaenoptera edeni, Omura, 1959, Sci. Rep. Whales Res. Inst., Tokyo, 14: 1, fig. 1 (lacrymal, malar), figs. 2, 4 (vertebrae), fig. 5 (pelvic bones, sternum), fig. 6 (hyoid bones), fig. 7 (scapula); pls. 1–3 (skull); pls. 4, 5, figs. 1, 2 (vertebrae); pl. 5, fig. 3 (flipper skeleton); pl. 6 (ribs) [N. Pacific: Japan (eastern, western, and southern coasts); distribution (40° N. to 40° S.); taxonomic history; external characters; osteology; comparisons; brydei a synonym].—Best, 1960, Norsk Hvalf.-

Tid. 49: 201, fig. 1 (underside of animal), fig. 2 (baleen) [characters; distribution; movements; reproduction; food].—Marr, 1960, Discovery Rep., 32: 127 [non-Antarctic and nonkrill feeder].

Balænoptera brydei Olsen, 1912, Tidens Tegn., Nov. 12 [Norwegian newspaper, not seen]; 1913, Proc. Zool. Soc. London, 1913: 1073, pls. 109-111 (animal), pl. 112 (baleen), pl. 113 (foetus) [S. Atlantic: South Africa (type locality: Saldanha Bay, western Cape Province); types, 12 specimens examined in Durban and Saldanha Bay in 1912 and 1913 without indication that any were preserved; characters; habits; parasites].—Harmer, 1928, Proc. Linnaean Soc. London, 140: 69, 87 [history of whaling; distribution].—Fraser, in Norman and Fraser, 1938, Giant fishes, whales and dolphins, p. 234 [N. Atlantic: West Indies (Grenada); characters; habits].—Mackintosh, 1946, Biol. Rev., 21: 61, 66 [Atlantic: Norway, South Africa, West Indies, Mexico (Baja California)].—Ruud, 1952, Norsk Hvalf.-Tidend., 41(12): 662 [Atlantic: French West Africa].—Budker, 1959, Whales and whaling, p. 37 [characters].—Chittleborough, 1959, Norsk Hvalf.-Tid., 48: 62, pl. 1 (animal), pl. 2 (baleen) [Indian: Australia (Shark Bay)].—Fraser and Purves, 1960, Bull. Brit. Mus. (Nat. Hist.), Zool., 7: 35, fig. 12 (pterygoid) [auditory system].

Balænoptera [sic] brydei, Cadenat, 1957, Bull. Inst. Français Afrique Noire, 19(A): 1358 [N. Atlantic: Sénégal].—Chittleborough, 1959, Norsk Hvalf.-Tid., 48(2): 62, pl. 1 (animal), pl. 2 (baleen) [Indian: Australia (Shark Bay); Borneo; Bonin Islands; characters].—Soot-Ryen, 1961, Norsk Hvalf.-Tid., 50(8): 323, fig. 1 (nasals), pls. 1–3 (skull, vetebra, ribs, scapula, anterior limb bones) [N. Atlantic: Curaçao; characters; comparisons; regarded as nominally distinct from B. edeni].

Balaenoptera acutorostrata, Cabrera (part, not Lacépède), 1961, Rev. Mus. Argentino Cienc. Nat. "Bernardino Rivadavia," 4: 620 [B. edeni Anderson in synonymy only].

Type: Skeleton, mounted, Indian Museum, Calcutta; collected by Major A. G. Duff, Deputy Commissioner of British Burma, and M. Duke, assistant.

Type locality: Thaybyoo Choung, Gulf of Martaban, between Sittang and Beeling Rivers, Burma.

DISTRIBUTION: Indian Ocean: from Australia to South Africa; in the Atlantic: from Cape of Good Hope to Sénégal and Norway (?) on the east, the Caribbean (Grenada; Curaçao) on the west; in the Pacific: recorded from Baja California, Barin Islands, Japan, and New Zealand. The species may occur off the coast of Ecuador as mentioned ty Tomilin (1962, Cetaceans of the U.S.S.R., Fauna U.S.S.R., 79: 61) but I find no authentic record. Cabrera (1961, Rev Mus. Argentino Cienc. Nat. "Bernardino Rivadavia," 4: 624) includes the Ross Sea in the summer range but gives no documentation. Slijper (1962, Whales [English transl.],

p. 347) is completely wrong in stating that the range of *edeni* is "restricted to the cold south."

### Balaenoptera borealis Lesson

Balæna rostrata Rudolphi (not Fabricius or Müller), 1822, Abh, Akad. Wiss. Berlin, 1820–21: 27–40, 5 pls. [N. Atlantic: Germany (Holstein, 1819 stranding)].

Balænoptera borealis Lesson, 1828, Compléments des oeuvres de Buffon ou Histoire naturelle des animaux rares, 1(Cétacés): 342 [not pl. 12=B. acutorostrata].—True, 1898, Proc. U.S. Nat. Mus., 21: 635, ftns. 2, 3 [rostrata Rudolphi 1822 preoccupied by Balaena rostrata Müller=?] Beddard, 1900, Book of whales, p. 154 [characters; habits.—Racovitza, 1903, Expédition Antarctique Belgique, fig. 14 (spouting) [between 82°38' W. to 94°42' W. and 69°50' S. to 70°52' S.; between 47° to 59° W., and 59° to 66° S.; between 165° to 175° E., and 65° to 76° S.; characters; breaking, blowing, and diving movements].-Mörch, 1911, Proc. Zool. Soc. London, 1911: 160 [S. Atlantic: Argentina (Patagonia); Falklands; South Shetlands; South Georgia; habits; movements].—Liouville, 1913, Deuxième Expéd. Antarctique Française, 1908–1910, fig. 7 (flippers), pl. 2, fig. 3 (animal) [taxonomy; habits].—Lahille, 1914, Enumeración y zoogeografía de los mamíferos de la República Argentina, p. 33 [distribution in northern and southern seas].—Salvesen, 1914, Scottish National Antarctic Expedition (1915), Zool., 4(19): 482 [S. Atlantic: Falklands; whaling; commerce].—Turner, 1915, Proc. Roy. Phys. Soc. Edinburgh, 35: 11 [S. Atlantic: South Shetlands; Graham Land].-Andrews, 1916, Mem. American Mus. Nat. Hist., (n. s.), 1(6): 291, pls. 29-41 (external anatomy), figs. 1-38 (parasites; blubber; bones) [taxonomy; type history; migration; parasites; anatomy; comparisons; distribution cosmopolitan].—Oliver, 1922, Proc. Zool. Soc. London, 1922: 562 [S. Pacific: New Zealand].—Weber, 1923, Die Cetaceen der Siboga-Expedition, Siboga-Expeditie, 58: 22 [S. Pacific: Indonesia (Bangori, Brebes, Java; Lamakera, Solor Island)].—Harmer, 1928, Proc. Linnaean Soc. London, 140: 69, 87 [Pacific: Japan; Ecuador; Atlantic: Norway; West Africa; Southwest Africa; South Africa; commercial history.]-Kellogg, 1929, Ann. Rep. Smithsonian Inst., 1928: 490 [S. Atlantic: Falklands; route between Falklands and Cabo Frio, Brazil (20° S.); S. Pacific: Chile; Antarctica; migrations].— Carcelles, 1932, Physis, 11: 51, 61 [S. Atlantic: Argentina; South Georgia; Falklands].—Fraser, in Norman and Fraser, 1938, Giant fishes, whales and dolphins, p. 227, fig. 64 (animal) [characters; distribution; habits].—Mathews, 1938, Discovery Rep., 17: 169, pls. 18, 19 (animal, baleen) [S. Atlantic: South Georgia; South Africa; characters; comparisons; sex ratios; food; parasites; reproduction; growth; age; migrations; commerce].—Cabrera and Yepes, 1940, Mamíferos sudamericanos, p. 314 [S. Atlantic: Argentina; S. Pacific: Chile; Peru].—Chasen, 1940, Bull. Raffles Mus., 15: 108 [S. Pacific: Borneo; Java; N. Pacific: Gulf of Siam].—Kellogg, 1940, Nat. Geogr. Mag., 77(1): 59 [characters; habits; distribution].—G. M. Allen, 1942, Extinct and vanishing mammals of the western hemisphere, p. 515 [history; habits; whaling; conservation].—Mackintosh, 1946, Biol. Rev., 21: 61, 66 seasonal migration; distribution; food; breeding; gestation; growth].—Gibson-Hill, 1950, Sarawak Mus. Journ., 5: 290 [S. Pacific: Sarawak].—Hamilton, 1952, Comun. Zool. Mus. Hist. Nat. Montevideo, 4(66): 3 [S. Atlantic: Falklands].—Barnard, 1954, Guide book to South African whales and dolphins, South African Mus. Guide, 4: 12 (South Africa].—Laws, 1956, Nature, London, 178: 194 [length at sexual and physical maturities].—Tomilin, 1957, Mammals of eastern Europe and northern Asia, 9: 221 [N. Atlantic: south to West Africa (Cap Blanc); S. Atlantic: Angola to South Georgia].-Mann. 1957, Invest. Zool. Chilenas, 4: 98 [S. Pacific: Chile].—Budker, 1959, Whales and whaling, p. 36, pl. 3a (animal) [characters; habits; reproduction; diseases; whaling and regulations].— Fraser and Purves, 1960, Bull. Brit. Mus. (Nat. Hist.), Zool., 7: 35, 60, fig. 12 (pterygoid) [auditory system].—Clarke, 1962, Norsk Hvalf.-Tid., 51(7): 272, 274, 275, 276 [S. Pacific: Ecuador (coast of Galápagos); Chile; distribution; movements; concentrations].—Marr, 1962, Discovery Rep., 32: 126 [krill feeding].—Tomilin, 1962, Cetacea of the U.S.S.R., Fauna U.S.S.R., 79: 54 [U.S.S.R. (Barents and White seas; Novaya Zemlya; Chukotsk Sea; Kuriles; near Cape Navarin, Anadir Gulf); distribution; movements; migrations; natural history; economics].

[Balaenoptera borealis], Marr, 1962, Discovery Rep., 32: 127 [krill feeding]. Balaenoptera borealis borealis, Tomilin, 1946, Compt. Rend. Acad. Sci. U.R.S.S., 54(5): 468 [classification]; 1957, Mammals of eastern Europe and northern Asia, 9: 239 [N. Pacific; characters; classification].

Balænoptera arctica Temminck, 1841, Fauna Japonica, Mamm., p. 26 [N. Pacific: Japan (type locality: coast of Kii); name based on a Japanese figure and description of the "iwasi-kuzira" stranded Mar. 6, 1760; name a secondary homonym of Balaena (=Balaenoptera) sulcata arctica Schlegel (=Balaenoptera physalus)].

Balænoptera laticeps Gray, 1846, Zoology of the voyage of H. M. S. Erebus and Terror, 1(Mammalia): 20 [new name for Balaena rostrata Rudolphi].

Balænoptera Iwasi Gray, 1846, Zoology of the voyage of H. M. S. Erebus and Terror, 1(Mammalia): 20 [name based primarily on the Balaenoptera arctica or "iwasi" of Temminck, 1841].

Sibbaldus Schlegelii Gray, 1864, Ann. Mag. Nat. Hist., (3), 14: 352 [nomen nudum].

[Sibbaldius] schlegelii Flower, 1865, Proc. Zool. Soc. London, 1864: 408 [Indian: Java (type locality); type a skeleton in the Leiden museum].— Jentink, 1887, Cat. Ostéologique Mamm. Mus. Hist. Nat. Pays-Bas, 9: 178 [type skeleton in Leiden museum, from northwest coast of Java, received 1864].

Balænoptera schlegelii, Van Bénéden and Gervais, 1880, Ostéographie des Cétacés, p. 220, pls. 14, 15 (skeleton of type) [osteology].

Bel anoptera [sic] Schlegeli, Lahille, 1899, Primera reunión del Congreso Latinoamericano, 3: 198 [S. Atlantic: Argentina (Tres Arroyos, Buenos Aires; Isla de los Estados, Tierra del Fuego)].

Balænoptera Schlegeli, Lahille, 1914, Enumeración y zoogeografía de los mamíferos de la República Argentina, p. 33 [S. Pacific: Chile (Cape Horn)].

Balænoptera schlegellii [sic], Dabbene, 1902, Anal. Mus. Buenos Aires, (3), 1: 350 [S. Atlantic: Tierra del Fuego].

Balænoptera borealis schlegelii, Tomilin, 1946, Compt. Rend. (Doklady), Acad. Sci. U.R.S.S., Moscow, 54(5): 468 [classification; thermoregulation]; 1957, Mammals of eastern Europe and northern Asia, 9: 239 [southern race distinguished by larger size].

Balænoptera alba Giglioli, 1870, Faun. Vert. Nell' Oceano, Viaggio Globo, R. P. Magenta, p. 74 [Indian: Java Sea (type locality); type an albino seen at sea.]

Pterobalæna (Sibbaldius) alba, Giglioli, 1874, Cetacei osservati durante il viaggio in torno al globo dela R. pirocorvetta Magenta 1865–1868, Naples, p. 52, pl. 2 (animal) [Indian: Java (type locality: west of Djakarta); characters; comparisons; regarded as probably identical with Sibbaldius schlegelii Flower].

Pterobalaena schlegeli alba, Tomilin, 1957, Mammals of eastern Europe and northern Asia, 9(Cetacea): 200 [cited in synonymy of Balaenoptera borealis Lesson].

Type: Skeleton in Berlin Museum, originally described and figured by Rudolphi in 1822 as *Balaena rostrata*, then as the "rorqual du nord" by Cuvier (1823, Recherches sur les ossemens fossiles, 5: 373, pl. 26, fig. 6); type stranded Feb. 21, 1819.

Type locality: Coast of Holstein near Grömitz, Schleswig-Holstein, Germany.

DISTRIBUTION: All seas; in Arctic Ocean and North Atlantic: from Novaya Zemlya, Spitzbergen, Davis Strait, and Labrador to Spain, Mediterranean Sea, and northern Africa as far as Cap Blanc on the east and to Campeche, Mexico, on the west; in South Atlantic: from Angola

and South Africa on the east, and Cabo Frio, Brazil (20° S.), on the west, to Graham Land (65° S.); in North Pacific: from eastern Siberia and western Alaska to Japan and Korea, Gulf of Siam on the west, Baja California on the east; in South Pacific; recorded from Australia, New Zealand, Ecuador (and Galápagos), Peru, Chile and Borneo; in Indian Ocean: known from Indonesia.

### Balaenoptera physalus Linnaeus

[Balæna] Physalus Linnaeus, 1758, Syst. Nat., ed. 10, 1: 75.—True, 1898, Proc. U.S. Nat. Mus., 21: 621 [type history].—Thomas, 1911, Proc. Zool. Soc. London, 1911(2): 156 [type history].

Balænoptera physalus, Racovitza, 1903, Expédition Antarctique Belgique, Cetacea, p. 55 [S. Atlantic: 47°02' W., 63°0' S.].—True, 1904, Whalebone whales of the western North Atlantic, pp. 107, 300, pl. 48, fig. 1 (animal) [characters; distribution].—Lahille, 1905, Rev. Jardín Zool. Buenos Aires, 1905, p. 75 [S. Atlantic; characters].—Liouville, 1913, Deuxième Expedition Antarctique Française, 1908-1910, pp. 1, 86, fig. 4 (baleen), fig. 5 (tail), fig. 6 (flipper), pl. 2 (animal) [taxonomy; habits].—Lillie, 1915, British Antarctic (Terra Nova) Expedition, Zool., 1(3): 116 [N. Atlantic: 4°07' N., 21°26' W.; S. Pacific: 41° S.; 75°23′ S.].—Oliver, 1922, Proc. Zool. Soc. London, 1922: 562 [S. Pacific: New Zealand].—Kellogg, 1928, Quart. Rev. Biol., 3: 195, fig. 20 (eye) [vision].—Harmer, 1928, Proc. Linnaean Soc. London, 140: 69, 87 [S. Pacific: Ecuador; Peru; Chile; history of exploitation].—Mackintosh and Wheeler, 1929, Discovery Rep., 1: 257, pls. 32-35, fig. 1 (animal); pl. 38, fig. 1 (embryo); pl. 39, figs. 1-3 (genitalia) [characters; size; blubber; reproduction; growth; populations; milk; food].—Kellogg, 1929, Ann. Rep. Smithsonian Inst., 1928, p. 487, pl. 2 (animal) [S. Atlantic: Brazil (between 12° and 18° S.); migration routes].—Carcelles, 1932, Physis, 11: 52, 71, fig. 7 (animal) [S. Atlantic: South Orkneys; Falklands; whaling; commerce].—Iredale and Troughton, 1934, Mem. Australian Mus., 6: 57 [S. Pacific: Australia (Queensland; Victoria)].—Fraser, in Norman and Fraser, 1938, Giant fishes, whales and dolphins, p. 223, fig. 63 (animal) [characters; habits; distribution].—Cabrera and Yepes, 1940, Mamíferos sudamericanos, p. 313 [characters; habits; distribution].—Kellogg, 1940, Nat. Geogr. Mag., 77(1): 59, pl. 5 (animal) [characters; habits; distribution].—Chasen, 1940, Bull. Raffles Mus., 15: 108 [Indian: Java (south coast).— G. M. Allen, 1942, Extinct and vanishing mammals of the western hemisphere, p. 513 [history; habits; whaling; conservation].—Mackintosh, 1946, Biol. Rev., 21: 61, 66, 67 [migration; food; breeding; gestation; growth; distribution].—Gunther, 1949, Discovery Rep., 25:

113, pl. 33 (animal), figs. 1-6 (swimming, breaching) [habits].— Barnard, 1954, Guide book to South African whales and dolphins, South African Mus. Guide, 4: 11, fig. 4 (animal) [S. Atlantic: South Africa].-Laws, 1956, Nature, London, 178: 194 [length at sexual and physical maturity].—Mann, 1957, Invest. Zool. Chilenas, 4: 98 [S. Pacific: Chile].—Budker, 1959, Whales and whaling, p. 34, pl. 2c (animal), pl. 5 (head) [characters; habits; reproduction; diseases; whaling and regulations].—Laws, 1959a, Norsk Hval.-Tid., 48(7): 329 [breeding season; sexual development; gestation]; 1959b, Discovery Rep., 29: 281 [Antarctic; growth rates; gestation (average, 111/4 months)].—Fraser and Purves, 1960, Bull. Brit. Mus. (Nat. Hist.), Zool., 7: 35, fig. 12 (pterygoid), pls. 51-53 (dissection of ear) [auditory system].—Laws, 1961, Discovery Rep., 31: 327 [Antarctic; reproduction; growth; age].—Fujino, 1962, Amer. Nat., 96: 205 [Antarctic; blood types (distribution; migration; interbreeding)].-Karlsen, 1962, Hvalr. Skrift. Norske Videnskaps-Akad., Oslo, 45: pls. 1-8 (development of tooth germs, jaw bone cartilage).—Brown, 1962, Discovery Rep., 33: 1 [Antarctic; movements of marked whales].—Clarke, 1962, Norsk Hvalf.-Tid., 51(7): 272, 274, 275 [S. Pacific: Chile; movements; concentrations].-Tomilin, 1962, Cetacea of the U.S.S.R., Fauna of the U.S.S.R., 79: 44, fig. 10 (animal), fig. 11 (skull) [U.S.S.R. (Bering, Chukotsk, Okhotsk, Japan, Kara, White Seas; Yenise River; Tazov Inlet; absent from the East Siberian, Laptev, and Black Seas); migrations; movements; concentrations; natural history; economics].

Balaenoptera physalus, Pilleri and Wandeler, 1964, Acta Anatomica, Suppl. 50, vol. 57: 1, 40 figs. [ontogeny and functional anatomy of

eye].

[Bal enoptera physalus], Harmer, 1931, Proc. Linnaean Soc. London, 142: 85 [ecology; whaling; economic history].—Kemp and Bennett, 1932, Discovery Rep., 6: 165 [S. Atlantic: South Georgia; South Shetlands; movements].—Wheeler, 1934, Discovery Rep., 9: 351 [population composition]—Brown, 1954, Discovery Rep., 26: 355 [dispersal].—Marr, 1962, Discovery Rep., 32: 127, 138, 147, 245 [krill feeding and pursuit; fetal growth related to krill feeding].

Balænoptera physalus physalus, Tomilin, 1946, Compt. Rend. Acad. Sci.

U.R.S.S., 54(5): 468 [northern subspecies].

[Balæna] Boops Linnaeus, 1758, Syst. Nat., ed. 10, 1: 76 [N. Atlantic: (type locality: "Oceano Septentrionali"; name based primarily on the Balæna tripinnis of Sibbald, 1692, Phalainologia, as cited in Artedi (1738, Genera piscium, 77: 107) and Ray (1713, Synopsis methodica piscium, p. 16)].

[?] B[alana] M[ysticetus] major Kerr, 1792, Animal kingdom, p. 357 [name based on "Raj. pisc. 16" (=Ray, 1713, Synopsis methodica

- piscium, p. 16), a composite, but here restricted; type locality: "Arctic seas"].
- [?] Balæna rostrata major, Rosenthal, 1827, Einige naturh. Bemerk. über die Walle, Greifswald, pl. 1, in Rosenthal and Hornschirch, Epistola de Balænopt. quibusdem. Gryph. 1825 [N. Atlantic: Germany (type locality: west coast of Rügen, Baltic Sea); type skeleton in Greifswald Museum; work not seen, cited ex Wagner, 1846, Schreber's Säugthiere, 7: 213].—Flower, 1870, Proc. Zool. Soc. London, 1869: 605, ftn., [listed as a synonym of B. antiquorum].
- B[alaena] physalis Kerr, 1792, Animal kingdom, p. 358 [name based primarily on Artedi (1738, Genera piscium, 77, p. 107); the common finback or B. physalus Linnaeus].
- Balænoptera gibbar Lacépède, 1804, Hist. Nat. Cétacées, pp. xxxvi, 114, pl. 1, fig. 2 (animal) [N. Atlantic (type locality: Arctic seas, particularly about Greenland); name based on authors' accounts and derived from the "gibbar" of Rondelet (1558, Histoire des poissons, 1, livr. 16, chap. 8, Lyon)].
- Balænoptera rorqual Lacépède, 1804, Hist. Nat. Cétacées, pp. xxxvii, 126, pl. 1, fig. 2 (animal), pl. 6 (skull), pl. 7 (vertebrae, baleen plate) [N. Atlantic (type locality; Scottish seas); name based on authors' accounts and derived from the "rorqual" of Bonnaterre (1789, Cétologie, p. 7)].
- Balæna sulcata Neill, 1811, Mem. Wernerian Nat. Hist. Soc., 1: 212 [N. Atlantic: Scotland (type locality: Firth of Forth, above Alloa); type description based on specimen stranded Oct. 23, 1808; name from Walker ms. description, based on animal stranded nearby in June 1761].
- Balæna rostrata australis Desmoulins, 1822, Dict. Classique Hist. Nat., 2: 164 [name based on animal observed by Quoy; name preoccupied by Balæna australis Desmoulins, 1822 (=Eubalæna glacialis australis Desmoulins)].
- Balænoptera australis, Gray, 1846, Zoology of the voyage of H.M.S. Erebus and Terror, 1(Mammalia): 51 ["southern finner."].
- Physalus? australis, Gray, 1850, Cat. Mamm. Brit. Mus., Cetacea, p. 43 [S. Atlantic: Falklands; synonyms: Balaena quoyii Fisher, B. rostrata australis Desmoulins]; 1866, Cat. seals and whales Brit. Mus., p. 161 [characters ex Desmoulins].
- Physalus australis, Gray, 1850, Ann. Mag. Nat. Hist., (4), 6: 396 [S. Atlantic: Patagonia].
- [Physalus] verus Billberg, 1828, Synopsis faunæ scandinaviæ, p. 41 [new name for Balaena physalus Linnaeus].
- Balænoptera mediterraneensis Lesson, 1828, Compléments des oeuvres de Buffon, pp. 442, 361 [N. Atlantic: France (type locality: Sainte Mar-

- guerite Island, Mediterranean Sea); name based on the specimen stranded Mar. 21, 1798, and recorded by Lacépède, 1804, Hist. Nat. Cétacées, p. 132, pl. 5, fig. 1 (animal)].
- Balænoptera mediterranensis [sic], Cabrera, 1961, Rev. Mus. Argentino Cienc. Nat. "Bernardino Rivadavia," 4(2): 621 [misspelling for mediterraneensis Lesson].
- P[hysalis (sic)] vulgaris Fleming, 1828, History of British animals, p. 32 [new name for Balæna physalis (sic) Fabricius].
- B[alæna] Antiquorum Fischer, 1829, Synopsis mammalium, p. 525 [N. Atlantic: Mediterranean Sea (type locality); name based on the Mediterranean "rorqual" recorded by Cuvier, 1823, Rech. Oss. Foss., 5: 370, pl. 26, fig. 5 (skull)].
- B[alæna] Quoyi Fischer, 1829, Syn. Mamm., p. 526 [new name for B. rostrata australis Desmoulins; S. Atlantic: Falkland Islands (type locality)].
- Balænoptera quoyii [sic], Lönnberg, 1906, Kongl. Svenska Vet. Akad. Handl., 40(5): 28, pl. 5, figs. 18, 21–23 (animal); pl. 8, fig. 37 (baleen) [S. Atlantic: South Georgia; characters; habits; synonyms: B. australis authors, B. patachonica Burmeister].
- Balænoptera physalus quoyii [sic], Tomilin, 1946, Compt. Rend. (Doklady) Acad. Sci, U.R.S.S., 54(5): 468 [S. Atlantic: Falklands; classification; thermoregulation].
- Balænoptera physalus quoyi, Tomilin, 1957, Animals of eastern Europe and northern Asia, 9: 200 [valid subspecies of southern hemisphere].
- Balænoptera Aragous Farines and Carcassone, 1829, Mémoire sur un cétacé échoué 27 Nov. 1928 [sic=1828] sur la côte de Saint-Cyprien (Perpignan), pp. 1–27, pl. (head of animal) [work not seen; N. Atlantic: France (type locality: coast of Saint Cyprien, Pyrénées Orientales, Mediterranean Sea)].—Farines and Carcassone, 1829, Férussac Bull. Sci. Nat., 19: 349 [abstract of original description; regarded as a synonym of B. boops Linnaeus by commentator Blainville].
- R[orqualus] musculus F. Cuvier, 1836, Hist. Nat. Cétacés, p. 334 [name based on the "rorqual de la Méditerranée" of Lacépède (1804, Hist. Nat. Cétacées, p. 132, pl. 5, fig. 1) stranded on Sainte Marguerite Island].
- Balænoptera tenuirostris Sweeting, 1840, Mag. Nat. Hist., 4: 343 [N. Atlantic: England (type locality: Charmouth Beach); type a stranded whale "property of John Bullen Esq., as Lord of the Manor of Marshwood, and Lord Paramount of the Hundred"].
- Balæna sulcata arctica Schlegel, 1841, Abh. Gebiete Zool. Vergl. Anat., 1: 38, pl. 6 (animal) [N. Atlantic: Netherlands (type locality); type a skeleton in the Leiden museum; name preoccupied by *B. mysticetus arctica* Schlegel (1841, op. cit., p. 36)].

- [?] Balæna (Balænoptera) Tschudii Reichenbach, 1846, Vollst. Naturg. In-Auslandes, Säugthiere, 1(Cetaceen): 33 [S. Pacific: Peru (type locality: coast of Miraflores, near Lima); name based on the stranded "rorqual" discribed by Tschudi (1844, Arch. Naturg., [10], 1: 255; 1844, Fauna Peruana, p. 20)].
- Balænoptera antarctica Gray, 1846, Zoology of the voyage of H. M. S. Erebus and Terror, 1(Mammalia): 51 (in text) [S. Pacific: New Zealand (type locality); type, baleen plates].
- Physalus antarcticus, Gray, 1850, Cat. Mamm. Brit. Mus., Cetacea, p. 43 [classification].
- Balænoptera Brasiliensis Gray, 1846, Zoology of the voyage of H. M. S. Erebus and Terror, 1(Mammalia): 51 [S. Atlantic: Brazil (type locality: Bahia); type, 3 plates of baleen received from Mr. Smith].
- Physalus Brasiliensis, Gray, 1850, Cat. Mamm. Brit. Mus., Cetacea, p. 43 [S. Atlantic: Brazil (Bahía)]; 1871, Suppl. Cat. seals and whales Brit. Mus., p. 53 [S. Atlantic: Brazil (Bahia; Abrolhos fishery, mouth of Rio Caravellas); notes from E. Hartt on whale movements and breeding].
- Physalus? fasciatus Gray, 1850, Cat. Mamm. Brit. Mus., Cetacea, p. 42 [S. Pacific: Peru (type locality); name based on the Balaenoptera of Tschudi (1844, Arch. Naturg., p. 255; Fauna Peruana, p. 20)]; 1866, Cat. seals and whales Brit. Mus., p. 162 [characters].
- P[hysalus] fasciatus, Gray, 1870, Ann. Mag. Nat. Hist., (4), 6: 392 [S. Pacific: Peru].
- Physalus Duguidii Heddle, 1856, Proc. Zool. Soc. London, 1856: 187, pl. 44 (animal with technical name in caption), pl. 45 (blow hole with technical name in caption) [N. Atlantic: Scotland (type locality: Island of Laman, or Lambholm, Orkneys); type a female, stranded Mar. 9, 1856; cervical and other vertebrae, sternum, hyoid, ear bones in British Museum, no. 1466a–56.11.7.2; collected by Mr. Heddle].—Gray, 1864a, Ann. Mag. Nat. Hist., (3), 14: 352 [N. Atlantic: Scotland (Orkneys); characters]; 1864b, Proc. Zool. Soc. London, 1864: 220, 221, figs. 13–15 (cervical vertebrae)].
- Pterobalæna communis Van Bénéden, 1857, Bull. Acad. Roy. Sci. Lettres, Beaux-Arts, Belgique, (26), (2), 1: 390–403 (name) [N. Atlantic: Netherlands (type locality: near Vlieland Island, found floating at sea); type skeleton in Antwerp Zoological Museum; the "gewoone vinnvisch" or common finwhale=B. musculus authors (not Linnaeus=B. physalus Linnaeus)].
- Pterobalæna Gigantea michrochira Barkow, 1862, Das Leben der Walle, p. 17 [new name for Balaena physalus authors and B. arctica Schlegel.
- Benedenia knoxii Gray, 1864, Proc. Zool. Soc. London, 1864: 212, figs. 8, 8a (cervical vertebrae), fig. 8b (ribs) [N. Atlantic: Great Britain (type locality: coast of North Wales, North Sea); type a skeleton in British Museum, no. 790c].

Balaenoptera patachonicus Burmeister, 1865, Proc. Zool. Soc. London, 1865: 190, figs. 1–11 [S. Atlantic: Argentina (type locality: Río de La Plata, near mouth); type skull, female, in Buenos Aires museum]; 1872, Ann. Mag. Nat. Hist., (4), 10: 413 [S. Atlantic: Argentina (near mouth of Río de La Plata, Buenos Aires); comparisons]; 1881, Erlaut. Fauna Argentina (Descr. Rep. Argentina, Atlas, Mamm.), pp. 12, 37, pl. 3 (skull), pl. 4 (vertebrae), pls. 6–8 (sternum, ribs, pectoral bones) [characters; comparisons].

Physalus Patachonicus, Burmeister, 1866, Ann. Mag. Nat. Hist., (3), 18: 495 [S. Atlantic: Argentina (mouth of Río de La Plata)].-Gray, 1866, Cat. seals and whales Brit. Mus., p. 374, fig. 76 (skull), figs. 77-80 (cervical vertebrae), figs. 81-84 (rib heads), fig. 85 (scapula), fig. 86 (portion of mandible) [characters ex Burmeister].—Burmeister, 1867a, Zeitschr. gesammten naturw., 29: 8 [S. Atlantic: Argentina (type stranded at Quilmes, mouth of Río de La Plata, south of Buenos Aires)]; 1867b, Anal. Mus. Publ. Buenos Aires, 1: 310 [S. Atlantic: Argentina (type, a partial skeleton found at Quilmes, Río de La Plata, in 1832)]; 1870, Ann. Mag. Nat. Hist., (4), 6: 112 [characters].—Figueira, 1894, Anal. Mus. Nac. Montevideo, 2: 13 (separate) [S. Atlantic].—Trouessart, 1898, Cat. Mamm., p. 1082 [synonyms: musculus Van Bénéden (part, not Linnaeus), 1888; australis Gray 1866 (not Lesson, 1828); quoyi Fischer; tschudii Reichenbach, 1846; fasciatus Gray, 1850; ?grayi MacCov, 1867 (Zool. Pal. Victoria); antarctica Gray (part, not Gray, 1865)].

Balænoptera patachonica, Lahille, 1905, Rev. Jardín Zool. Buenos Aires,

1905, p. 76 [type in Buenos Aires Museum].

Balænoptera patagonica [sic], Dabbene, 1902, Anal. Mus. Buenos Aires, (3), 1: 350 [S. Atlantic: Tierra del Fuego].—Lahille, 1914, Enumeración y zoogeografía de los mamíferos de la República Argentina, p. 33 [S. Atlantic: a variety of *B. physalus*].

Balænoptera swinhoii Gray, 1866a, Proc. Zool. Soc. London, 1865: 725, figs. 1–6 (vertebrae) [N. Pacific: Formosa (type locality); type, skull, vertebrae, ribs in British Museum]; 1866b, Cat. seals and whales

Brit. Mus., p. 382, figs. 88-93 [characters].

B[alænoptera] swinhoei [sic], Cope, 1869, Proc. Acad. Nat. Sci. Philadelphia, p. 16 [reference].

Swinhoia chinensis Gray, 1868, Synopsis whales and dolphins Brit. Mus., p. 3 [new name for Balaenoptera swinhoii Gray].

Balænoptera velifera Cope, 1869, Proc. Acad. Nat. Sci. Philadelphia, p. 16, figs. 9, 10 (sketches of animal) [N. Pacific: U.S.A. (type locality: "Oregon coasts"); name based on the "Oregon finner" described by Scammon, 1874, Marine mammals, pp. 34, 303, pl. 2, fig. 2 (animal), but available to Cope prior to Scammon's 1874 publication].

S[ibbaldius] tuberosus Cope, 1869, Proc. Acad. Nat. Sci. Philadelphia, p. 16 [N. Atlantic (type locality: "eastern North American coast"); type a skeleton said to be in the Academy of Natural Sciences, Philadelphia, deposited by Dr. P. A. Taliaferro (cf. Cope, 1866, Proc. Acad. Nat. Sci. Philadelphia, 1866: 297)].—True, 1904, Whalebone whales of the western North Atlantic, p. 81 [N. Atlantic: U.S.A. (type locality: Mobjak Bay, Virginia, near Chesapeake Bay); type skeleton not located in Philadelphia].

Sibbaldius tectirostris Cope, 1869, Proc. Acad. Nat. Sci. Philadelphia, p. 17 [N. Atlantic: U.S.A. (type locality: Sinepuxent Bay, Maryland Peninsula); type a skeleton formerly in the Academy of Natural Sciences, Philadelphia, now in the U.S. National Museum].—True, 1904, Whalebone whales of the western North Atlantic, p. 85 [type history; characters].

Stenobalæna xanthogaster Gray, 1874, Ann. Mag. Nat. Hist., (4), 14: 305, fig. (scapula) [S. Pacific: New Zealand (type locality: Port Underwood, south side Cook Strait); type skeleton, Wellington museum].

B[alænoptera] blythii Anderson, 1879, Anatomical and zoological researches . . . expedition to western Yunnan, pp. 563–564 [Indian: type locality unknown; type, five vertebrae in the Medical College, Calcutta].

[Balænoptera velifera] copei Elliot, 1901, Field Columbian Mus., Zool. Ser., 2: 13 [N. Pacific: U.S.A. (type locality: Shumagen Islands, Alaska); name based on Balaenoptera borealis Cope (not Lesson), in Scammon, 1874, Marine mammals, p. 303, fig. p. 37 (animal)].

Balaenopteris [sic] guibusdam [sic] Tomilin, 1957, Mammals of eastern Europe and northern Asia, 9(Cetacea): 93 [miscitation for Balaena rostrata major Rosenthal in synonymy of B. musculus].

Balænoptera musculus, Van Bénéden and Gervais (not Linnaeus), 1880, Ostéographie des cétacés, p. 167, pls. 12, 13, figs. 11–24 (skeleton) [osteography; history of strandings; synonymy].—Flower, 1885, List Cetaceans Brit. Mus., p. 5 [synonyms: Balaena physalus Linnaeus, 1758; Balaenoptera rorqual Lacépède, 1804; Balaena antiquorum Fischer, 1829; Balaenoptera musculus of "most modern authors"; Benedenia knoxii Gray, 1864; Physalus duguidii Heddle, 1856].—Van Bénéden, 1887, Mem. Cour. Acad. Roy. Belgique, 41: 6, 13, 69 [N. Atlantic: French Guiana; S. Atlantic: Patagonia; characters; habits; parasites; whaling; distribution; synonyms: antiquorum Gray, patachonica Burmeister, communis Eschricht (=Van Bénéden)].—Lahille, 1899, Primera reunión del Congreso Latinoamericano, 3:197 [S. Atlantic: Argentina (San Fernando, Buenos Aires); patachonica Burmeister a synonym].—Mörch, 1911, Proc. Zool. Soc. London, 1911: 661 [S. Atlantic: Patagonia; Falklands; South Shetlands; South Georgia; habits; movements].—Salvesen, 1914,

Scottish National Antarctic Expedition, (1915), 4(19): 482, pl. 2, fig. 2 (animal) [S. Atlantic: Falklands; whaling].—Bruce, 1915, Scottish National Antarctic Expedition (1915), 4(20): 487 [S. Atlantic: 53° S.–72° S.].

Balaena antipodarum, Tomilin (not Gray), 1957, Animals of eastern Europe and northern Asia, 9: 130 [name erroneously attributed to Fischer 1829, evidently a lapsus for antiquorum Fischer, 1829].

Dubertus rhodinsulensis Tomilin, 1957, Animals of eastern Europe and northern Asia, 9: 131 [cited in synonymy of Balaenoptera physalus as a nomen nudum attributed to Trumbull in Goode, 1884, Fisheries and fishing industries U.S., 1(1): 29, wherein the name "Dubertus" of Rhode Island is shown to be a corrupted form of the variants "jubartas," "gubartus," "gibbar," "jubar," etc., all vernacular names applied to baleen whales but usually to the humpback or fin whale].

Type: None in existence; name based primarily on the "finfish" of Martens (1675, Spitzbergische oder Grönlandische Reise Beschreibung gethan im Jahr 1671, p. 125, pl. Q, fig. c).

Type locality: "Oceano Europæo," specifically the Spitzbergen Sea. Distribution: Atlantic, Pacific, and Indian Oceans from equatorial waters to pack ice in northern and southern hemispheres; in South American waters from the Caribbean (Panama), Baía, Brazil (12° S.), to Tierra del Fuego and the Falklands in the Atlantic, and from Ecuador in the Pacific southward to pack ice (75° S.).

Remarks: The earliest available name for the fin whale of the southern hemisphere, should it prove to be distinct from the northern, is *Balaeno-ptera physalus quoyi* Fischer, 1829.

## Balaenoptera musculus Linnaeus

[Balæna] Musculus Linnæus, 1758, Syst. Nat., ed. 10, 1: 76.—True, 1898, Proc. U.S. Nat. Mus., 21: 629 [type history].—Thomas, 1911, Proc. Zool. Soc. London, 1911, 2: 156 [type history].

Balænoptera musculus, Racovitza, 1903, Expedition Antarctique Belgique, Cetacea, pp. 33, 54, figs. 12–13 (breeding; blowing; diving movements). [Antarctica: observed between latitudes 61° and 71° S. but mostly at 63° S., 64° S., 66° S., and between longitudes 20° W. and 80° W. but mostly between 50° W. and 60° W., and 135° E. to 180° E. but mostly between 160° E. and 180° E.; habits].—True, 1904, Whalebone whales of the western North Atlantic, pp. 149, 299, pl. 48, fig. 2 (animal) [characters; distribution].—Lahille, 1905, Rev. Jardín Zool., Buenos Aires, 1905, p. 77 [S. Atlantic].—Wilson, 1907, Nat. Antarctic Exped., Brit. Mus., 2: 3, fig. 1 (dorsal outline) [S. Pacific: Antarctica (Ross Sea); Australia].—Castillo, 1906, Caza de la ballena en la Isla Santa María, Min. Industria, Santiago de Chile, pp. 1, 4 [S. Pacific: Chile (Isla Santa María, Arauco); whaling].—Liouville, 1913, Deuxième

Exped. Antarctique Française, 1908–1910, pp. 1, 73, fig. 1 (baleen), fig. 2 (tail), fig. 3 (flipper); pl. 1, figs. 1, 2 (animal) [Antarctica; taxonomy; habits].—Lahille, 1914, Enumeración y zoogeografía de los mamíferos de la Republica Argentina, p. 33 [S. Atlantic; synonyms: intermedia Burmeister, miramaris Lahille].—Lillie, 1915, British Antarctic (Terra Nova) Exped., Zool., 1(3): 115, pl. 7, fig. 1 (animal) [S. Atlantic: 42°09′ S., 55°15′ W.; S. Pacific: 55°34′ S., 78°38′ S.].— Turner, 1915, Proc. Roy. Phys. Soc. Edinburgh, 35: 11, 20 [S. Atlantic: South Shetland Island; Graham Land].—Oliver, 1922, Proc. Zool. Soc. London, 1922: 561 [S. Pacific: New Zealand].—Harmer, 1928, Proc. Linnaean Soc. London, 140: 69, 86 [S. Atlantic: Falklands; South Africa, West Africa; S. Pacific: Antarctica (Ross Sea); Chile; Peru; Ecuador].—Carcelles, 1932, Physis, 11: 52, 61, 66, figs. 4, 6 (animal) [S. Atlantic: South Orkneys; South Georgia; Falklands; Argentina; characters; whaling; commerce].—Mackintosh and Wheeler, 1929, Discovery Rep., 1: 257, pls. 25-31 (animal), pl. 35, figs. 2, 3 (animal); pl. 38, fig. 3 (embryo); pl. 39, fig. 4 (ovaries) [S. Atlantic: external characters; blubber; food; reproduction; growth; populations; milk].— Iredale and Troughton, 1934, Mem. Australian Mus., 6: 57 [S. Pacific: Australia (New South Wales); Indian: Australia].—Fraser, in Norman and Fraser, 1938, Giant fishes, whales and dolphins, p. 219, pl. 6a (animal) [characters; habits; distribution].—Cabrera and Yepes, 1940, Mamíferos sudamericanos, p. 313, pl. 77 (animal) [characters; habits; distribution].—Chasen, 1940, Bull. Raffles Mus., 15: 108 [Indian: Java; Straits of Malacca].—Mackintosh, 1946, Biol. Rev., 21: 61, 65, 67 [migrations; food; breeding; gestation; growth; distribution].—Yañez, 1948, Rev. Biol. Marina, Valparaiso, 1: 120 [S. Pacific: Chile; S. Atlantic: South Shetlands].-Hamilton, 1952, Comun. Zool. Mus. Hist. Nat. Montevideo, 4(66): 3 [S. Atlantic: Falklands].—Barnard, 1954, Guide book to South African whales and dolphins, S. African Mus. Guide, 4: 11, fig. 3 (animal) [S. Atlantic: South Africa].—Laws, 1956, Nature, London, 178: 194 [length at sexual and physical maturities].—Mann, 1957, Invest. Zool. Chilenas, 4: 98 [S. Pacific: Chile].—Budker, 1959, Whales and whaling, p. 33, pls. 2b, 4, 26 (animal) [characters; habits; reproduction; diseases; whaling and regulations].—Fraser and Purves, 1960, Bull. Brit. Mus. (Nat. Hist.), Zool., 7: 6, 35, 39, 50, fig. 12 (pterygoid) [auditory system].

Balænoptera musculus, Laws, 1959, Discovery Rep., 29: 281 [Antarctic; growth rates; gestation (average 10¾ months)].—Schihara, 1961, Norsk Hvalf.-Tid., 50: 1, figs. 1–3 (animal) [Indian: Kerguelen; characters; reproduction; catch statistics].—Fujino, 1962, Amer. Nat., 96: 205 [Antarctic; blood types (interbreeding; migrations; distribution)].—Brown, 1962, Discovery Rep., 33: 1 [Antarctic; movements

of marked whales].—Tomilin, 1962, Cetacea of the U.S.S.R., Fauna U.S.S.R., 79: 38, fig. 8 (animal), fig. 9 (skull) [N. Pacific; now rare in Soviet waters; Hawaii; Ecuador; distribution; migrations. natural history; economics].

[Balaenoptera musculus], Marr, 1962, Discovery Rep., 32: 127, 138, 145, 147, 245, pl. 3 (krill-filled stomach) [Antarctic; krill feeding and pursuits; foetal growth relative to krill feeding].

Balaenoptera musculus musculus, Tomilin, 1946, Compt. Rend. Acad. Sci. U.R.S.S., 52(5): 468 [northern subspecies recognized].

Sibbaldus musculus, Kellogg, 1929, Ann. Rep. Smithsonian Inst., 1928: 483, fig. 6 (animal) [S. Atlantic: South Georgia; South Shetland; N. Atlantic: Panama (Cristobal)]; 1940, Nat. Geogr. Mag. 77(1): 57, pl. 2 (animal), fig. p. 67 (animal), fig. p. 68 (skeleton) [characters; habits; distribution].—G. M. Allen, 1942, Extinct and vanishing mammals of the western hemisphere, p. 519 [history; habits; whaling; conservation].

Balænoptera jubartes Lacépède, 1804, Hist. Nat. cétacées, pp. xxxvii, 120, pl. 4 (animal) [N. Atlantic: (type locality: Greenland seas, especially between Greenland and Iceland; name based on authors' accounts and derived from the "baleine jubarte" of Bonnaterre, 1789].—Sonnini (Lacépède), 1804, Hist. Nat. cétacées, pp. 33, 200 [characters].

B[alaena] borealis, Fischer (not Lesson), 1829, Synopsis Mammalia, p. 524 [part; name based on the B. boops of Albers (1822, Icon. Anat., pl. 1), the "Ostend whale," and other blue whales].

Rorqualus borealis, Hamilton, 1837, Jardine's Naturalist's Library, Mammalia, 6 (whales): 125, 138, pl. 6 (skeleton) [N. Atlantic: Scotland (type locality: North Berwick, Firth of Forth); type stranded 1831; skeleton in Edinburgh Museum].

Balæna maximus borealis, Knox (of Hamilton, not Lesson), 1838, Catalogue of anatomical preparations illustrative of the whale, particularly of the great northern rorqual (Balaena maximus borealis) . . . p. 5, fig. p. 8 (skull) [N. Atlantic: Scotland (Bay near Berwick, 23 miles from Edinburgh); type stranded Oct. 5, 1831; mounted skeleton in Royal Institution of Edinburgh, 1834, 1835; exhibited in London 1838; osteology; baleen; anatomy].

Sibbaldus borealis, Gray, 1864a, Ann. Mag. Nat. Hist., 14: 352 [N. Atlantic: the "baleine d'Ostende" of Van Breda, 1827, and Dubar, 1828]; 1864b Proc. Zool. Soc. London, 1864: 223, fig. 18 (rib) [characters; history; synonyms: borealis "Jardine," rorqual Dewhurst, gigas Reinhardt tenuirostris Sweeting].

Balaenoptera Rorqual Dewhurst, 1832, Mag. Nat. Hist., 5: 214 [N. Atlantic: found dead floating in the North Sea between England and Belgium, towed to Ostend; type: the Ostend whale skeleton described while exhibited in Charing Cross, London; history].

- R[orqualus] boops, F. Cuvier (not Linnaeus), 1836, Histoire naturelle des cétacés, pp. 308, 321 [part (not pl. 20, and most of text) new name for Balaenoptera jubartes Lacépède; characters; history].
- Physalus (Rorqualus) Sibbaldii Gray, 1847, Proc. Zool. Soc. London, 1847: 92 [N. Atlantic: England (type locality: coast of Yorkshire, North Sea); type a skeleton in the Museum of the Hull Literary and Philosophical Society.
- Balænoptera sibbaldii, Flower, 1885, List Cetacea Brit. Mus., p. 6 [type an articulated skeleton of young individual, Brit. Mus., no. 1465a-65.8.23.1; latirostris Flower, 1865 a synonym].—Beddard, 1900, Book of whales, p. 153 [characters].—Mörch, 1911, Proc. Zool. Soc. London, 1911: 661 [S. Atlantic: Patagonia; Falklands; South Georgia; South Shetlands].
- Balænoptera Sibbaldi, Van Bénéden, 1887, Mem. Cour. Acad. Roy. Belgique, 41: 6, 13, 107 [taxonomy; characters; habits; parasites; distribution; synonyms: intermedia Burmeister, antarcticus Burmeister].— Lahille, 1899, Primera reunión del Congreso Latinoamericano, 3: 97 [S. Atlantic: Argentina (Buenos Aires to Tierra del Fuego); intermedia Burmeister a synonym].—Salvesen, 1914, Scottish National Antarctic Expedition, 4 (Zool.), pt. 19: 482 [S. Atlantic: Falklands; whaling industry].—Bruce, 1915, Scottish National Antarctic Expedition, 4 (Zool.), pt. 20: 487 [S. Atlantic: Graham Land].—Turner, 1915, Proc. Roy. Phys. Soc. Edinburgh, 35: 11 [S. Atlantic: South Shetlands; Graham Land].
- Balænoptera gigas Reinhardt, 1857, in Rink, Grönland geografisk og statistik beskrevet, Copenhagen, 1(2): 10 [work not seen; N. Atlantic (type locality: Greenland seas)]; 1860, in Rink, Grönland, geographisch und statistisch beschreiben [translation from the original Danish], p. 577 [the "tunnolik" of the Esquimos; apparently a nomen nudum or nomen dubium here].—Lilljeborg, 1866, Synopsis of the cetaceous mammalia of Scandinavia (Sweden and Norway), Ray Society, London, p. 262 [characters of skeletons from Ostend and Greenland].
- Pterobalaena gigas, Van Bénéden, 1861, Mém. Acad. Roy. Belgique, 32: 37 [characters; name for "Ostend whale" of authors; Balaena rostrata Rudolphi, 1822 (=B. borealis), also regarded as a synonym]; 1868, Bull. Acad. Roy. Sci. Belgique, 25: 102 [bibliography].
- Rorqualus major Knox, 1870, Trans. New Zealand Inst., (1869), 2: 21, 23, pl. 2a, fig. 1 (skeleton) [redescription and new name for type of Rorqualus borealis Hamilton, 1837].
- Balænoptera indica Blyth, 1859, Journ. Asiatic Soc. Bengal, 28: 488 [Indian: India (type locality: Sordip, Bay of Bengal); type, a jaw bone in the Indian Museum, Calcutta, presented by Mr. J. Kyd].—Blanford, 1891, Fauna of British India, p. 567 [Indian: Bay of Bengal and Arabian Sea].

Sibbaldius [sic] antarcticus Burmeister, 1866, Proc. Zool. Soc. London, 1865: 713, fig. 1 (scapula) [S. Atlantic: Argentina (type locality: Samboramban Basin, near mouth of Río Salado, south of Buenos Aires); type a scapula in the Buenos Aires Museum]; 1867, Anal. Mus. Publ. Buenos Aires, 1: 310 [S. Atlantic: type a scapula only; presented by José Martínez].

Sibbaldius? antarcticus, Gray, 1866, Cat. seals and whales Brit. Mus., p. 381 [characters].

Sibbaldius sulfureus Cope, 1869, Proc. Acad. Nat. Sci. Philadelphia, p. 20, fig. 11 (sketch of animal) [N. Atlantic: U.S.A. (type locality: "North West coast"); type, the "sulphurbottom whale" of Scammon (1874, Marine mammals, pp. 70, 302, pl. 13 (animal)].—True, 1904, Whalebone whales of the western North Atlantic, pp. 90, 284 [type history; characters].

Balænoptera intermedia Burmeister, 1871, Bol. Mus. Público Buenos Aires, p. vii [not seen]; 1872, Ann. Mag. Nat. Hist., (4), 10: 413 [S. Atlantic: Argentina type locality: near mouth of Río Luján, Buenos Aires); collected Aug. [14, 1866]; type, a skeleton in the Buenos Aires museum; translation of original description in Bol. Mus. Publ. 1871, which may not have circulated outside Argentina]; 1881, Descr. Phys. Rep. Argentine, Atlas, p. 22, pl. 1 (animal, external characters), pl. 2 (skull), pls. 3–4 (vertebrae), pls. 5–7 (sternum, ribs, limb bones) [characters; comparisons].—Figueira, 1894, Anal. Mus. Nac. Montevideo, 2: 13 (separate) [S. Atlantic: Río de La Plata, Uruguay-Argentina; antarcticus Burmeister 1865, a synonym].—Dabbene, 1902, Anal. Mus. Buenos Aires, (3), 1: 350 [S. Atlantic: Tierra del Fuego].

Balænoptera musculus intermedia, Tomilin, 1946, Compt. Rend. (Doklady) Acad. Sci. U.R.S.S., 54: 468 [classification; thermoregulation]; 1962, Cetacea of the U.S.S.R. Fauna U.S.S.R., 79: 41 (in text) [regarded as a valid race on basis of greater size].

Physalus latirostris Flower, 1865, Proc. Zool. Soc. London, 1864: 414 [N. Atlantic: Netherlands (type locality: Katwijk-aan-zee, 6 miles from Leiden); type a skeleton seen at Utrecht but now perhaps in the Leiden Museum (cf. Jentink, 1887, Cat. Ostéologique Mamm. Mus. Hist. Nat. Pays-Bas, 9: 178, under Physalus antiquorum, skeleton a)].

Balænoptera Carolinæ Malm, 1866, Några blad on Hvaldjur i Allmänhet och Balænoptera carolinæ i Synnerhet, Göteborg, p. 10 [N. Atlantic: Sweden (type locality: west coast); type a skeleton in the Göteborg Natural History Museum].—Lahille, 1905, Rev. Jardín Zool. Buenos Aires, 1905, p. 78 [S. Atlantic].—Lönnberg, 1906, Kongl. Svenska Vet. Akad. Handl., 40(5): 24, pl. 5, fig. 19 (animal), pl. 8, fig. 36 (baleen) [S. Atlantic: South Georgia; Brazil (Rio Grande do Sul); characters; taxonomy].

Pterobalæna gryphus Munter, 1877, Mitth. Naturw. Verein von Neu Vorpommern u Rügen, 9: 54 [N. Atlantic: Poland (type locality: coast of Pomerania, Baltic Sea); type a skull in the Griefswalder Anatomical Museum].

Balænoptera miramaris Lahille, 1898, Rev. Mus. La Plata, 9: 79, pl. 1 (animal), pls. 2–11 (skeleton) [S. Atlantic: Argentina (type locality: Miramar, Buenos Aires); type, skeleton of stranded female in Museo de La Plata]; 1905, Rev. Jardín Zool., Buenos Aires, 1905, p. 78 [type, stranded Sept. 22, 1898; characters].

Balaenoptera musculus brevicauda Zemsky and Boronin, 1964, Norsk Hvalf.—Tid., 53(11): 310 [S. Indian (type locality: Crozet and Kerguelen Islands); type, not designated; name based on 10 individuals measured at sea during the 1962–63 season; one skeleton, at least, preserved, presumably in the Atlantic Scientific Research Institute of Marine Fisheries and Oceanography, U.S.S.R.].

[Balænoptera musculus], Harmer, 1931, Proc. Zool. Soc. London, 142: 85 [Antarctic; ecology; whaling; commerce].—Kemp and Bennett, 1932, Discovery Rep., 6: 165 [S. Atlantic: South Georgia, South Shetland].—Brown, 1954, Discovery Rep., 26: 355 [dispersal in South Seas].

"Ostend whale" or "Baleine de Ostend," Van Breda, 1827, Eenige byzonderheden ontrent den Walvisch die den 5 den November 1827, by Ostende gestrand is. Algem. Konst en letterbode, p. 341 [work not seen].—Dubar, 1828, Osteographie de la baleine échouée à l'est du port d'Ostende, le 4 November 1827, Brussels, pls. 1–6 (cranial bones), pls. 7–8 (vertebrae), pls. 9–10 (pelvis, scapula), pl. 11 (pectoral limb), pl. 12 (tail fin), pl. 13 (genitalia, mammae, anus) [history; anatomy].

"Pygmy blue whale," Ichihara, 1961, Norsk Hvalf.-Tid., 50(1): 1, fig. 23 (animal), figs. 6, 7 (baleen) [Indian: Kerguelen Islands; characters; statistics]; 1963, Norsk Hvalf.-Tid., 52: 128 [Antarctic: Kerguelen Island; Crozet Island; Marion Island; size; color; baleen; comparisons].

Type: None in existence; name based primarily on the *Balaena fistula duplici* of Artedi, 1738 (Synonymia nominum piscium, p. 107).

Type Locality: "Mari Scotico," specifically, the Firth of Forth, Scotland. Distribution: Arctic, Atlantic, Pacific, and Indian Oceans but most abundant north of 35° N. and south of 40° S. to pack ice in both hemispheres; in South American waters from Rio Grande do Sul, Brazil, on the Atlantic, and Ecuador on the Pacific, southward to pack ice; also recorded from Cristóbal, northern Panama, and Hawaii.

Remarks: Zemsky and Boronin (1964, Norsk Hvalf.-Tid., 53: 306–311) proposed *Balaenoptera musculus brevicauda* for the smaller-than-average-sized blue whales of the Crozet, Kerguelen, and Heard Islands. That these whales are isolated reproductively from others in the Southern Hemisphere, as presumed, is moot. Earlier names for Southern Hemisphere blue whales,

"pygmy" or other crop or niche variables, include indica Blyth 1859, antarcticus Burmeister 1866, intermedia Burmeister 1871, miramaris Lahille 1898.

### Genus MEGAPTERA Gray

Megaptera Gray, 1846a, Ann. Mag. Nat. Hist., (1), 17: 83; 1846b, Zoology of the voyage of H. M. S. Erebus and Terror, 1 (Mammalia): 16 [included species: Balaena nodosa Bonnaterre (= Balaena novaeangliae Borowski), Balaenoptera (sic) Poeskop Desmoulins (= Megaptera Poeskop Gray=novaeangliae Borowski), longimana Rudolphi (=novaeangliae Borowski), Megaptera Americana Gray (= B. novaeangliae Borowski), Balaenoptera antarctica Temminck (= B. novaeangliae Borowski)].—Kellogg, 1928, Quart. Rev. Biol., 3: 33 et seq., 191 [history; relationships; characters.]—Winge, 1942, Interrelat. Mamm. Gen., 3: 306 [characters; classification].

Megapteron Gray, 1846, Zoology of the voyage of H. M. S. Erebus and Terror, 1(Mammalia): 51 [included species: Megapteron longimana (here designated type=Balaena longimana Rudolphi=B. novaeangliae Borowski), Megapteron Americana (=Megaptera americana Gray=Balaena novaeangliae Borowski); generic name apparently a lapsus for Megaptera Gray].

Perqualus Gray, 1846, Zoology of the voyage of H. M. S. Erebus and Terror, 1(Mammalia): pl. 32 (caption) [subgenus of Balaenoptera; type species: B. boops (=of Fabricius not Linnaeus=Balaena novaeangliae Borowski)].

Kyphobalæna Eschricht, 1849, K. Danske Vidensk. Selsk. Skrifter, Nat. Math. Afd. Copenhagen, (5), 1: 108 [type species: Kyphobalaena boops Fabricius (not Linnaeus) (= Balaena novaeangliae Borowski), by monotypy].

Poescopia Gray, 1864, Proc. Zool. Soc. London, 1864: 207 [subgenus of Megaptera Gray; included species: Balaena lalandii Fischer (type, = B. novaeangliae Borowski), Megaptera novæ-zelandiae Gray (=B. novaeangliae Borowski)]; 1866, Cat. seals and whales Brit. Mus., p. 125 [genus].

Poeskopia Gervais, 1871, Nouv. Arch. Mus. Hist. Nat., Paris, 7: 88 [emendation of Poescopia Gray, 1864].

Cyphobalæna Marschall, 1873, Nomen. Zool. Mamm., p. 5 [emendation of Kyphobalæna Eschricht, 1849].

Megapterina Tomilin, 1957, Mammals of eastern Europe and northern Asia, 9(Cetacea): 274 [supergeneric category erected by Gray (1864, Proc. Zool. Soc. London, 1864: 205) erroneously listed as a generic name in synonymy of Megaptera Gray].

Type species: Megaptera longipinna Gray (sic=Balaena longimana Rudolphi=Balaena novaengliae Borowski), by monotypy.

DISTRIBUTION: All seas from Arctic to Antarctic.

#### Megaptera novaeangliae Borowski

Balæna boops, Fabricius (not Linnaeus, 1758), 1780, Fauna Groenlandica, p. 36 [N. Atlantic: Greenland].—Lahille, 1899, Primera reunión del Congreso Latinoamericano, 3: 197 [S. Atlantic: Argentina (Punta Indio, Río de La Plata)].—Mörch, 1911, Proc. Zool. Soc. London, 1911: 160 [S. Atlantic: Patagonia; Falklands; South Shetland; South Georgia; habits; movements].—Salvesen, 1914, Scottish National Antarctic Expedition (1915), Zool., 4(19): 482, pl. 4, fig. 2 (animal); pl. 5, fig. (animal) [S. Atlantic: Falklands; whaling industry].—Bruce, 1915, Scottish National Antarctic Expedition, Zool., 4(20): 487 [57° S.–64° S.].—Turner, 1915, Proc. Roy. Phys. Soc. Edinburgh, 35: 11, 20 [S. Atlantic: Graham Land].—Fraser and Purves, 1960, Bull. Brit. Mus. (Nat. Hist.), Zool., 7: 34, 37, 109, 114, fig. 12 (pterygoid), fig. 26 (table), fig. 29 (ear bones), pl. 48 (ear dissection) [auditory system].

Megaptera boops, Van Bénéden and Gervais (not Linnaeus), 1869–1880, Ostéographie des cétacés, pls. 10, 11, figs. 1–8 (skeleton) [osteology; taxonomic history].—Morice, 1958, Rev. Travaux Inst. Pêches Maritime, 22(1): 104 [N. Atlantic: Grenadine Islands, Lesser Antilles]. Balaena Novae Angliae Borowski, 1781, Gemeinnüzzige Naturgeschichte des Thierreiches, Berlin, 2(1): 21 [name based on "la baleine de la Nouvelle Angleterre" of Brisson, 1756, Reg. Anim., p. 351].

Megaptera novaeangliae, Kellogg, 1932, Proc. Biol. Soc. Washington, 45: 148 [N. Atlantic: U.S.A. (type locality: New England); antedates B. nodosa Bonnaterre, 1789; original diagnosis quoted]; 1940, Nat. Geogr. Mag., 77(1): 65, pl. 6 (animal), fig. p. 37 (baleen), fig. p. 62 (harpooning), fig. p. 66 (barnacles)].—G. M. Allen, 1942, Extinct and vanishing mammals of the western hemisphere, p. 524 [history; habits; whaling; conservation].—Hamilton, 1952, Com. Mus. Zool. Montevideo, 4(66): 3 [S. Atlantic: Falklands].—Hall and Kelson, 1959, North American mammals, p. 838, fig. (animal), fig. 462 (skull) [characters; synonymy].—Morrison, 1962, Biol. Bull., 123: 154 [S. Pacific: Australia (Moreton Island, Queensland; Byron Bay, New South Wales); body temperature (average 36° C.)].—Clarke, 1962, Norsk Hvalf.-Tid., 51(7): 272, 274, 275, 276 [S. Pacific: Ecuador (coast to Galápagos); Colombia; Peru; Chile; distribution; movements; concentrations].

M[egaptera] novaeangliae, Mackintosh, 1953, Proc. 7th Pacific Sci. Congr., 4: 369 [S. Pacific].

[Megaptera novaeangliae], Marr, 1962, Discovery Rep., 32: 127, 138, 147, 245 [krill feeding and pursuit].

B[alana] nodosa Bonnaterre, 1789, Tabl. Encycl. Méth. Cétologie, p. 5
[N. Atlantic: U.S.A. (type locality: New England coast); name based on published description].

Megaptera nodosa, Lahille, 1905, Jardín Zool., Buenos Aires, 1905, p. 72 [S. Atlantic: Argentina (Punta Indio, Río de La Plata); Beagle Canal, Tierra del Fuego].—Castillo, 1906, Caza de la ballena en la Isla Santa María, Min. Industria, Santiago de Chile, p. 1 [S. Pacific: Chile (Isla Santa María, Arauco); whaling].—Lillie, 1915, British Antarctic (Terra Nova) Expedition, 1910, Zool., 1(3): 87, figs. 2, 3 (color variation); pls. 1, 2 (animals); pl. 3 (tympanic bone); pl. 4, fig. 4 (foetus) [S. Atlantic: 22°17′ S., 28°16′ W.; 30°49′ S., 17°13′ W.; S. Pacific: 46° S.-68° S.; characters; baleen; hair; Jacobson's organ; throat glands; jaw movements; teats; ear; osteology; food; habits; distribution; migration].—Oliver, 1922, Proc. Zool. Soc. London, 1922: 564 [S. Pacific: New Zealand].—Murphy, 1925, Bird islands of Peru, p. 256 [S. Pacific: Peru].—Harmer, 1928, Proc. Linnaean Soc. London. 140: 68 [whaling industry; distribution].—Kellogg, 1928, Quart. Rev. Biol., 33: 193, fig. 24 (auditory apparatus) [senses].—Kellogg, 1929, Ann. Report Smithsonian Inst., 1928: 472, fig. 1 (animal); pl. 1 (animal), fig. 2 (migration routes) [S. Atlantic: Brazil banks to Falklands; S. Pacific: Gulf of Guayaquil to South Shetland Island, but formerly from Guayaquil to Bay of Panama].—Townsend, 1935, Zoologica, 19(1): 11, chart D (map) [distribution based on log book records mostly 19th century].—Mathews, 1937, Discovery Rep., 17: 7, pl. 2 (animal) [S. Atlantic: South Georgia; South Shetlands; South Africa (Saldanha Bay); Indian: South Africa (Natal); Moçambique (Linga Linga); S. Pacific: New Zealand; characters reproduction; migration; history; whaling].—Fraser, in Norman and Fraser, 1938, Giant fishes, whales and dolphins, p. 242, pl. 6b (animal) [characters; habits; distribution].—Cabrera and Yepes, 1940, Mamíferos sudamericanos, p. 315 [S. Atlantic: Brazil; Argentina; S. Pacific: Chile; characters; habits].-Mackintosh, 1946, Biol. Rev., 21: 61, 63, 67 [seasonal migrations; food; breeding; growth].—Olrog, 1950, Acta Zool. Lilloana, 9: 509 [S. Atlantic: Chile (Hately Bay; Wollaston Island)].-Barnard, 1954, Guide book to South African whales and dolphins, p. 14, fig. 6 (animal) [S. Atlantic: South Africa].-Laws, 1956, Nature, London, 178: 194 [length at sexual and physical maturities].—Symons and Weston, 1958, Norsk Hvalf.-Tid., 47(2): 53, pls. 1-4 (animal), pls. 5-7 (ear plug), pl. 8 (ovary) [age determination; sexual cycle].—Budker, 1959, Whales and whaling, p. 32, fig. (animal); pl. 2a (animal) [characters; habits; reproduction; whaling and regulations].—Deraniyagala, 1960, Spolia Zeylanica, 29: 84 [Indian: Ceylon].—Harrison, 1960, Malayan Nat. Journ., 14: 87 [N. Pacific: Sarawak].—Ivashin, 1961, Byull. Moskov. Obshchestva Ispytat Prirody. Otdel Biol., 66(6): 110 [feeding habits (periodicity); food (400 kg. crustacean daily, 450 tons in 4 months)].—Tomilin, 1962, Cetaceans of the U.S.S.R., Fauna U.S.S.R., 79: 70, fig. 18 (animal),

- fig. 19 (skull) U.S.S.R. (distribution) movements; concentrations; migrations; natural history; economics].
- Megaptera nodosa nodosa, Tomilin, 1946, Compt. Rend. Acad. Sci. U.R.S.S., 54(5): 468 [northern subspecies]; 1957, Mammals of eastern Europe and northern Asia, 9: 328 [valid subspecies of northern hemisphere].
- Balænoptera australis Lesson, 1828, Complément des oeuvres de Buffon, 1(Cétacés): 372 [S. Atlantic: South Africa (type locality: Cape of Good Hope); name based on animal observed by M. Delalande].
- Rorqualus Australis, Hamilton, 1837, Jardine's Naturalists' Library, Mammalia, 6 (whales): 146 [S. Atlantic: South Africa (Cape of Good Hope); Tierra del Fuego; characters].
- Megaptera australis, Iredale and Troughton, 1934, Mem. Australian Mus.,6: 58 [S. Pacific: Australia (Tasmania); synonyms: lalandii Fischer,novaezelandiae Gray].
- B[alana] Lalandii Fischer, 1829, Syn. Mamm., p. 525 [S. Atlantic: South Africa (type locality: Cape of Good Hope); name based on a skeleton in Paris Museum collected by Delalande and described as "Rorqual du Cap" by Cuvier].
- Megaptera lalandii, Gray, 1864, Proc. Zool. Soc. London, 1864: 206, fig. (cervical vertebra) [characters].—Van Bénéden and Gervais, 1880, Ostéographie des cétacés, p. 130, pl. 9 (skeleton of type) [osteology; distribution; synonymy].—Lönnberg, 1906, Kongl. Svenska Vetensk. Akad. Handl., 40(5): 33, pl. 6, figs. 25, 27 (animal), fig. 26 (fetus); pl. 8, fig. 38 (baleen) [S. Atlantic: South Georgia; characters; taxonomy; habits; synonymy].
- Poescopia Lalandii, Gray, 1866, Cat. seals and whales Brit. Mus., p. 126 [characters; classification; synonyms: capensis Smith, poeskop Gray, leucopteron Lesson].
- Megaptera nodosa lalandii, Tomilin, 1946, Compt. Rend. (Doklady) Acad. Sci. U.R.S.S., Moscow, 54(5): 468 [classification; thermoregulation].—Ivashin, 1958, Inf. Bull. Soviet Antarctic Exped. No. 3, Arctic and Antarctic Sci. Res. Inst., Min. Marine Fleet, USSR, Leningrad p. 77 [available name for southern race; characters; migrations].
- Balæna longimana Rudolphi, 1832, Abh. Akad. Wiss. Berlin, 1829, p. 133, pl. 1 (skeleton), pls. 2, 3 (skull), pl. 4 (mandible), pl. 5 (animal, baleen plate) [N. Atlantic: Germany [type locality: mouth of Elbe River); type stranded November 1824; type skeleton in Berlin Museum].
- Megaptera longimana, Gray, 1846, Zoology of the voyage of H. M. S. Erebus and Terror, 1(Mammalia): 17 [classification]; 1864, Proc. Zool. Soc. London, 1864: 207, figs. 5–7 (vertebrae), fig. 7a (rib) [characters].—True, 1898, Proc. U.S. Nat. Mus., 21: 634 [nomenclature; Balaena nodosa Bonnaterre a synonym].—Beddard, 1900, Book of whales, p. 164 [characters; habits; synonyms: boops Fabricius, poeskop

Desmoulins, lalandi Fischer, capensis Smith, novaeangliae Gray, burmeisteri Gray, antarctica Temminck, leucopteron Lesson, novaezelandiae Gray, americana Gray, kuzira Gray, versabilis Cope, osphyia Cope; characters; habits].—Racovitza, 1903, Expedition Antarctique Belgique, Cetacea, pp. 19, 52, figs. 1–11 (respiratory movements), pl. 2 (spouting, diving), pl. 3 (leaping, swimming), pl. 4 (spouting, diving) [20° W.–80° W. but most commonly 50° W.–60° W.; 135° E.–180° E. but most commonly 160° E.—180° E.; 60° S.–67° S. but most commonly 63° S.–64° S.].—Liouville, 1913, Deuxième Expédition Antarctique Française, 1908–1910, pp. 1, 18, fig. 9 (baleen), fig. 10 (fluke), fig. 11 (flipper); pl. 3. figs. 1, 2 (animal) [characters; distribution].—Carcelles, 1932, Physis, 11: 52, 61, 77, fig. 8 (processing cadaver) [S. Atlantic: Orkneys; South Georgia; Falklands].—Yañez, 1948, Rev. Biol. Marina, Valparaiso, 1: 121 [S. Pacific: Chile].—Mann, 1957, Invest. Zool. Chilenas, 4: 97 [S. Pacific: Chile].

Megaptera longipinna [sic], Gray, 1846, Ann. Mag. Nat. Hist., (1), 17: 83 [name lapsus for Balaena longimana Rudolphi].

Balænoptera capensis A. Smith, 1834, South African Quarterly Journ., 2: 130 [S. Atlantic: South Africa (type locality: Cape of Good Hope); work not seen].

"Rorqual du Cap", Cuvier, 1823, Recherches sur les ossemens fossiles, 5, 1: 370, 372, pl. 26, figs. 1–4 (skull) [S. Atlantic: South Africa (Cape of Good Hope); osteology; comparisons; skeleton collected by M. Delalande].

R[orqualus] antarcticus F. Cuvier, 1836, Cétacés, p. 347, pl. 20, figs. 2-4 (skull) [name based on the "rorqual du Cap" of G. Cuvier, 1823].

Balænoptera antarctica, Temminck, 1841, Fauna Japonica, Les Mammifères marins, Atlas, pl. 30 (animal); 1842, text [N. Pacific: southern coast of Japan; characters; synonyms: "rorqual du Cap" Cuvier Balaena longimana Rudolphi].

Balana sulcata antarctica, Schlegel, 1841, Abhandlungen aus dem Gebiete der Zoologie und vergleichenden Anatomie, 1(Cetaceen): 43 [S. Atlantic: South Africa (Cape of Good Hope); skeleton of original "rorqual du Cap" Cuvier and Balaenoptera australis Lesson, in Paris museum; Indian: Java; skull in Leiden Museum; N. Pacific: Japan; U.S.S.R. (Kamchatka); synonyms: B. boops Fabricius (not Linnaeus), B. longimana Rudolphi; review and reclassification of the antarctica of Cuvier and authors, not the description of a new species as indicated in some works].

Megaptera antarctica, Gray, 1846, Zoology of the voyage of H. M. S. Erebus and Terror 1(Mammalia): 17 [characters; classification; history; synonyms: B. leucopteron Lesson, Balaena Allamack Pallas, 1811 (Zool. Russo-Asiatica); Pacific: "Japan and Antarctic seas"].

- Balænoptera leucopteron Lesson, 1842, Nouv. Tabl. Reg. Anim., p. 202 [full original description: "La Hump-back des pêcheurs. Hautes latitudes C."].
- Balæna Allamack Gray, 1846, Zoology of the voyage of H. M. S. Erebus and Terror, 1(Mammalia): 17 [in synonymy of Megaptera antarctica; name attributed to Pallas (1811, Zoogeographia Rosso-Asiatica, 1: 288), who used only the Latin vernacular: "Balæna Allamak Canagice dicta"; cf. Chamisso (1824, Nova Acta Acad. Ces. Leop.-Carol. Nat. Cur., 12: 258, pl. 18, fig. 5), the "aliomach" or "aliama" of the Aleuts].
- Megaptera americana Gray, 1846, Zoology of the voyage of H. M. S. Erebus and Terror, 1(Mammalia): 17 [N. Atlantic (type locality: believed to be the Bermuda Islands); name based on a figure of a "Bermuda whale" of unknown origin and associated with a whale described in 1665, Philos. Trans., 1:11, 132]; 1866, Cat. seals and whales Brit. Mus., p. 129 [characters].—Malm, 1871, Kongl. Svenskaps Akad. Handl., 9(2): 38, pl. 1, figs. 4a-h (limb bones, rib); pl. 4, fig. 28 (carpus) [N. Atlantic: French West Indies (St. Barthelémy); carpus].
- Megaptera Poeskop Gray, 1846, Zoology of the voyage of H. M. S. Erebus and Terror, 1(Mammalia): 17 [S. Atlantic: South Africa (type locality: Cape of Good Hope); type a skeleton in the Paris museum; name based on the "poeskop" of Lalande (ms.), Cuvier (1823, Oss Foss., 5: pl. 26, figs. 1–4, 19) and Desmoulins (1822, Dict. Class. Nat. Hist., 2: 164), wherein it is described under the vernacular "Baleinoptère Poeskop," which is cited erroneously by some modern authors as a technical name.]
- Megaptera kuzira Gray, 1850, Cat. Mamm. Brit. Mus., Cetacea, p. 30 [name based on Balaenoptera antarctica of Temminck (1842, Fauna Japonica, p. 21, pl. 30); N. Pacific: Japan (type locality); 1866, Cat. seals and whales Brit. Mus., p. 130 characters; history; Balaenoptera Astrolabiæ Pucheran probably a synonym].
- [Megaptera] kusira [sic] Trouessart, 1904, Cat. Mamm., Suppl., p. 785 [classification; name a misspelling of kuzira Gray].
- Balænoptera Astrolabæ Pucheran, 1853, Voyage au Pôle Sud . . . l'Astrolabe et al Zélée, Zool., 3: 42, pl. 24, fig. 1 (animal) [type locality in the southern seas; name based on the "rorqual noueux" of Hombron and Jaquinot, 1841-1853, Voy. au Pôle Sud, Atlas, pl. 24, fig. 1].
- Balænoptera syncondylus A. Müller, 1863, K. Phys.-Oekonom. Ges. Konisberg, 4: 38, pls. 1–3 [N. Atlantic: Germany (type locality: "Ostsee und die Kurische Nehrung")].
- Megaptera novæ-zelandiæ Gray, 1864, Proc. Zool. Soc. London, 1864: 207, fig. 4 (ear bones) [S. Pacific: New Zealand (type locality: Otago)].— Flower, 1885, List Cetacea Brit. Mus., p. 5 [type, right tympanic and periotic bones, Brit. Mus., no. 1468a].

Megaptera nodosa novae-zealandiae, Ivashin, 1958, Inf. Bull. Soviet Antarctic Exped. No. 3, Arctic and Antarctic Sci. Res. Inst. Min. Marine Fleet, U.S.S.R., Leningrad, p. 77 [available name and classification of Australian-New Zealand form; characters; migration].

M[egaptera] gigas Cope, 1865, Proc. Acad. Nat. Sci. Philadelphia, p. 179 ["North Atlantic species"; characters; comparisons; name erroneously attributed to Rudolphi or Gray without bibliographic references].

Megaptera osphyia Cope, 1865, Proc. Acad. Nat. Sci. Philadelphia, p. 180 [N. Atlantic: U.S.A. (type locality: 40 miles off Petit Menan Lighthouse, Maine); type, a skeleton in Niagara Falls Museum, Canada].

[Megaptera longimana] moorei, Gray, 1866, Cat. seals and whales Brit. Mus., p. 122 [N. Atlantic: England (type locality: Estuary of Dee

River); type, a skeleton, Free Museum, Liverpool].

Megaptera? Burmeisteri Gray, 1866, Cat. seals and whales Brit. Mus., p. 129 [S. Atlantic: Argentina (coast of Buenos Aires); name based on Burmeister's ms. notes on bones in the Buenos Aires Museum].

Megaptera Burmeisteri, Burmeister, 1866, Act. Soc. Paleo. Buenos Aires, Anal. Mus. Público, Buenos Aires, 1(1866): x [S. Atlantic: Argentina (Island near mouth of Paraná; Río de La Plata, Buenos Aires)].

Megaptera Burmeisteri, Burmeister, 1867, Anal. Mus. Público, Buenos Aires, 1: 311 [S. Atlantic: Argentina (type locality: island between Paraná Guazú and Paraná de las Palmas); type, several vertebrae and a tympanic bone in the Buenos Aires Museum].

Megaptera braziliensis Cope, 1867, Proc. Philadelphia Acad. Sci., p. 32 [S. Atlantic: Brazil (type locality: Bahia); type, a skeleton of young individual originally preserved in the Academy of Natural Sciences of Philadelphia but now possibly in the U.S. National Museum].

Megaptera brasiliensis [sic], True, 1904, Whalebone whales of the western North Atlantic, p. 102 [characters; comparisons; name regarded as a misidentification of Balaenoptera brasiliensis Gray=B. physalus Linnaeus, and not as of a new species].

Kyphobalæna Keporkak Van Bénéden, 1868, Bull. Acad. Roy. Sci. Belgique, Bruxelles, 25: 109 (name), 113 (description), 116, 118 (scapula) [N. Atlantic: Greenland (type locality: Davis Strait); type skeleton in Louvain Museum; cf. Van Bénéden (1864, Bull. Acad. Roy. Belgique, (2), 18: 389) for full description].

Megaptera versabilis Cope, 1869, Proc. Acad. Nat. Sci. Philadelphia, p. 15, figs. 5, 6 (sketch of animal) [N. Pacific: type locality not specified; description based on the "North Pacific humpback" of Scammon].

Megaptera bellicosa Cope, 1871, Proc. American Phil. Soc., 12: 103, figs. 21–28 (skull, vertebrae) [N. Atlantic: French West Indies (type locality: St. Barthélemy Island); type skeleton originally in the Academy of Natural Sciences, Philadelphia, now in the U.S. National Museum; presented by Dr. A. Goes].—True, 1904, Whalebone whales of western

North Atlantic, p. 97, pl. 29–31, 34, 35 (skull, skeletal parts) [type history; characters].

Megaptera nodosa bellicosa, Elliot, 1904, Field Columbian Mus., Zool. Ser., 4(1): 41, pls. 9–11 (skull) [N. Atlantic: Caribbean Sea; Gulf of Mexico].

- Megaptera indica Gervais, 1883, Compt. Rend. Acad. Sci. Paris, 97: 1566 [Indian (type locality: Persian Gulf); type, a skeleton, Muséum National d'Histoire Naturelle, Paris].
- [?] Balæna gibbosa? Gray, in Dieffenbach, 1843, Travels in New Zealand, 2: 183 [S. Pacific: New Zealand].
- [?] Balæna atlanticus Hurdis, 1897, Natural history of the Bermudas, pp. 330, 339 [N. Atlantic: Bermudas; no description; name probably a lapsus for Megaptera americana Gray].

Type: None in existence, name based on the "baleine de la Nouvelle Angleterre" of Brisson (1756, Règne animal, p. 351), which is based in turn on the "Balaena gibbo unico" of Klein (1741, Historiæ piscium naturalis . . . 2: 12, fig. 1) and the "Pflockfish" of Anderson (1750, Histoire naturelle de l'islande . . . 2: 101).

Type locality: Coast of New England, United States.

DISTRIBUTION: All seas from Arctic to Antarctic; in South American waters (cf. Townsend, 1935, Zoologica, 19: chart D, and above synonymy), West Indies, Venezuela, Brazil (Baía and Fernando de Noronha to Rio Grande do Sul), Argentina (Río de La Plata to Patagonia), Falklands, Chile, including Juán Fernandéz Island, Peru, Ecuador, including Galápagos Islands, western Colombia, southern Panama; south of Cape Horn to approximately 68° S.

Remarks: The earliest available name for the humpback whale of the southern hemisphere, should it prove to be distinct from the northern, is *Megaptera novaeangliae australis* Lesson, 1828.

## Family BALAENIDAE

## Genus CAPEREA Gray

Caperea Gray, 1864, Proc. Zool. Soc. London, 1864: 202 [subgenus of Balaena Linnaeus]; 1866, Cat. seals and whales Brit. Mus., p. 101 [genus].—Van Bénéden, 1874, Bull. Acad. Roy. Belgique, (2), 37: 832 [taxonomy; Neobalaena Gray a synonym].—Davies and Guiler, 1957, Proc. Zool. Soc. London, 129: 579 [characters; distribution; history].

Neobalana Gray, 1870, Ann. Mag. Nat. Hist., (4), 6: 154 [type species: Balaena marginata Gray, by original designation].—Kellogg, 1928, Quart. Rev. Biol., 3: 185, 191 [characters; history].—Winge, 1942, Interrelat. Mamm. Gen., 3: 306 [characters; relationship].

Type species: Balaena (Caperea) antipodarum Gray 1864 (not Gray, 1843, 1846) (= Balaena marginata Gray), by monotypy.

DISTRIBUTION: Southern hemisphere; in South Atlantic: Buenos Aires, Argentina, to Cape Horn, the Falklands, and South Africa; in South Pacific: New Zealand, Australia, and the Indian Ocean coasts of southern and southwestern Australia. Cabrera (1961, Rev. Mus. Argentino Cienc. Nat. "Bernardino Rivadavia," 63: 624) says the summer range includes the Ross Sea, but his statement is not documented.

### Caperea marginata Gray

Balæna marginata Gray, 1846, Zoology of the voyage of H.M.S. Erebus and Terror, 1(Mammalia): 48, pl. 1, fig. 1 (baleen); 1850, Cat. Mamm. Brit. Mus., Cetacea, p. 14 [characters]; 1866, Cat. seals and whales Brit. Mus., p. 90 [characters of type].—Hector, 1870a, Trans. New Zealand Inst., (1869), 2: 26, pl. 2b (skull) [S. Pacific: New Zealand (Kawau Island); characters]; 1870b, Ann. Mag. Nat. Hist., (4), 5: 221 [S. Pacific: New Zealand].—Gray, 1870, Ann. Mag. Nat. Hist., (4), 5: 221 [a true right whale].

Neobalæna marginata, Gray, 1870, Ann. Mag. Nat. Hist., (4), 6: 155, figs. 1, 2 (skull) [S. Pacific: New Zealand (Kawau Island); characters; classification]; 1871, Suppl. Cat. seals and whales Brit. Mus., p. 40, figs. 1, 2 (skull) [S. Pacific: New Zealand (Kawau Island); animal; characters]; 1873, Ann. Mag. Nat. Hist., (4), 11: 128 [Caperea antipodarum Gray, 1864, a synonym].—Flower, 1885, List Cetacea Brit. Mus., p. 4 [Indian: Australia; type, 3 baleen blades, Brit. Mus., 339a, b, c; S. Pacific: New Zealand; tympanic bone of Caperea antipodarum Gray, 1864 (not 1843)].—Lahille, 1899, Primera reunión del Congreso Científico Latinoamericano, 1898, 3: 197 S. Atlantic: Argentina (coast of Buenos Aires)].—Beddard, 1900, Book of whales, p. 141 [characters]; 1903, Trans. Zool. Soc. London, 16: 87, pls. 7-9 (skeleton) Sosteology; Caperea antipodarum Gray, 1864 (not Gray, 1843), a synonym].—Lahille, 1905, Rev. Jardín Zool. Buenos Aires, 1905: 71 S. Atlantic: Argentina (Buenos Aires)].—Oliver, 1922, Proc. Zool. Soc. London, 1922: 559, pl. 1 (skull) [S. Pacific: New Zealand].—Fraser, in Norman and Fraser, 1938, Giant fishes, whales and dolphins, p. 217 [characters; distribution].—Kellogg, 1940, Nat. Geogr. Mag., 77(1): 58, pl. 3 (animal) [characters; habits; distribution].—Cabrera and Yepes, 1940, Mamíferos sudamericanos, p. 317 S. Pacific: Chile; S. Atlantic: Argentina (Buenos Aires)].-G. M. Allen, 1942, Extinct and vanishing mammals of the western hemisphere, p. 499 [history; habits; whaling; conservation].—Yañez, 1948, Rev. Biol. Marina, Valparaiso, 1: 120 [S. Pacific: Chile]. - Mackintosh, 1946, Biol. Rev., 21: 61, 63 [S. Atlantic: South Africa, South America; S. Pacific: Australia; Indian: Australia; movements; food, breeding].-Hamilton, 1952, Comun. Mus. Hist. Nat. Montevideo, 4(66): 3 [S. Atlantic: Falklands].—Mann, 1957, Invest. Zool. Chilenas, 4: 97 [S. Pacific: Chile].—

Budker, 1959, Whales and whaling, p. 31 [characters; whaling and regulations].

Caperea marginata, Iredale and Troughton, 1934, Mem. Australian Mus., 6: 56 [southern and western Australia].—Barnard, 1954, Guide book to South African whales and dolphins, S. African Mus. guide, 4: 10, fig. 2 (animal).—Davies and Guiler, 1957, Proc. Zool. Soc. London, 129: 579, pls. 1, 2 (stranded animal) [characters; distribution].—Fraser and Purves, 1960, Bull. Brit. Mus. (Nat. Hist.), Zool., 7: 29, 35, 37, 38, 77, 85, 102, fig. 13 (tympanoperiotic bone), fig. 15 (pterygoid sinus), fig. 22 (air sac system), pls. 5, 6 (skull) [auditory system].—Hale, 1964, Rec. South Australian Mus., 14(3): 679, figs. 1-4, 6-10 (external characters), figs. 5-11 (manubrium), pl. 36 (animal), pls. 37-39 (skull), pls. 40-41 (vertebrae) [Australia (Leighton Beach, near Fremantle, Perth, Western Australia; St. Vincent Gulf, South Australia); characters, measurements]; 1964, Rec. South Australian Mus., 14(4): figs. 1, 2 (sternum), figs. 3, 4 (skull), pl. 48 (animal) [Australia (South Australian strandings; Kangaroo Island; Victor Harbour; Port Lincoln Bay, Eyre Peninsula; Coffin Bay, Eyre Peninsula); character].

Balæna (Caperea) antipodarum, Gray (not Gray 1843), 1864, Proc. Zool. Soc. London, 1864: 202, fig. 2 (tympanic bones) [S. Pacific: New Zealand (type locality: Otago); type a right tympanic bone presented by Mr. Stuart].

Caperea antipodarum, Gray (not Gray, 1843), 1866, Cat seals and whales Brit. Mus., p. 101, fig. 9 (tympanic bones) [part, tympanic bones only].—Flower, 1885, List Cetacea Brit. Mus., p. 4 [in synonymy of Neobalæna marginata; type from Otago, New Zealand, right tympanic bone, British Museum, no. 1467a-52.5.23.1; not antipodarum Gray in Dieffenbach, 1843="probably B[alæna] australis"].

Type: Three baleen plates, British Museum (Natural History), nos. 339a, b, and c; presented by Mr. J. Warwick (cf. Flower, 1885, List Cetacea Brit. Mus., p. 4).

Type locality: Western Australia.

DISTRIBUTION: The same as for the genus.

## Genus EUBALAENA Gray

Eubalana Gray, 1864, Proc. Zool. Soc. London, 1864: 201.—Townsend, 1935, Zoologica, 19(1): 8, 9, chart C [distribution based on log book records from 1785 to 1913].

Eubalaena Kellogg, 1928, Quart. Rev. Biol., 3: 33 et seq. [history; relationship].—Winge, 1942, Interrelat. Mamm. Gen., 3: 305 [characters; classification].—Scheffer and Rice, 1963, U.S. Fish and Wildlife Serv. Spec. Sci. Rep., 431: 9 [regarded as a synonym of Balaena Linnaeus].

Hunterus Gray, 1864, Ann. Mag. Nat. Hist., (3), 14: 349 [type species: Hunterus temminckii Gray (= Balaena glacialis australis Desmoulins) by monotypy].

Macleavius Gray, 1865, Proc. Zool. Soc. London, 1864: 588 (figure and name), 589 (text) [type species: Macleavius australiensis Gray (= Eubalaena glacialis australis Desmoulins), by original designation].

Hunterius Gray, 1866, Cat. seals and whales Brit. Mus., pp. 78, 98

[emendation of Hunterus Gray, 1864].

Macleayanus Marschall, 1873, Nomen Zool. Mamm., p. 8 [emendation of Macleavius Gray].

Halibalaena Gray, 1873, Proc. Zool. Soc. London, 1873: 140 [type species: Balaena britannica Gray (= Balaena glacialis Müller) by monotypy].

Type species: Eubalaena australis (= Balaena australis Desmoulins), by monotypy.

DISTRIBUTION: In North Atlantic (Eubalaena glacialis glacialis Müller): from Davis Strait to Bermuda and Gulf of Mexico on the west, and, formerly, from Spitzbergen and Iceland to the Mediterranean on the east; in North Pacific (E.g. japonica Lacépède, 1818): from Gulf of Alaska, Bering Sea, and Sea of Okhotsk to 20° N.; in South Atlantic, Pacific, and Indian Oceans (E.g. australis Desmoulins): from 13°-20° S. to 65° S.

### Eubalaena glacialis australis Desmoulins

"Baleine du cap," Cuvier, 1823, Recherches sur les ossemens fossiles, 5: 373-374, pl. 25, figs. 1-4 (skull, young), figs. 5-8 (skull, adult); pl. 27, figs. 10-16 (ear bones) [S. Atlantic: South Africa (Cape of

Good Hope); osteology; comparisons].

Balaena australis Desmoulins, 1822, Dict. Class. Hist. Nat., 2: 161, pl. (animal).-Lesson, 1828, Complément des oeuvres de Buffon, 1 (Cétacés): 391, 442 (table méthodique) [characters (p. 391 under Balaena antarctica Lesson)].—Hamilton, 1837, Jardine's Naturalist's Library, Mammalia, 6(Whales): 122 [characters; habits].—Bennett, 1840, Narrative of a whaling voyage around the globe, 2: 229 [characters; whaling in southern seas].—Gray, 1846, Zoology of the voyage of H.M.S. Erebus and Terror, 1(Mammalia): 15, 48, pl. 1, fig. 3 (baleen) [S. Atlantic: South Africa (False Bay, Cape of Good Hope); characters; baleen]; 1850, Cat. Mamm. Brit. Mus., Cetacea, p. 15 [S. Atlantic: South Africa (False Bay; Cape of Good Hope); baleen].-Van Bénéden and Gervais, 1880, Ostéographie des cétacés, p. 35, pls. 1, 2 (skeleton of type in Paris Museum) [characters; distribution; synonymy].— Burmeister, 1881, Erlaut. Fauna Argentina, p. 35 [S. Atlantic: Argentina].-Flower, 1885, List Cetacea Brit. Mus., p. 2 [part; S. Atlantic: South Africa (Cape of Good Hope); S. Pacific: New Zealand.—Beddard, 1900, Book of whales, p. 133 [characters; habits; whaling; synonyms: B. biscayensis Gray, B. sieboldi Gray, B. japonica Gray,

Hunterius temminckii Gray, B. antipodarum Gray, B. antarctica Schlegel, B. mediterranea Gray, B. angulata Gray, B. nordcaper Gray, B. capensis Grav, B. cisarctica Cope, B. eubalana Flower, Hunterius swedenborgi [sic] Lilljeborg, Macleavius australiensis Gray, M. britannicus Gray, B. tarentina Capellini, B. alutiensis (sic) Van Bénéden, B. kuliomoch Chamisso, B. cullamacha [sic] Chamisso].—Lönnberg, 1906, Kongl. Svenska Vetensk. Akad. Handl., 40(5): 41, fig. 4a (flipper), fig. 5 (cephalic excrescences); pl. 5, fig. 20 (animal); pl. 6, figs. 24, 29 (animal); pl. 7 (animal); pl. 8, fig. 39 (baleen) [S. Atlantic: South Georgia: characters; comparisons; habits].—Wilson, 1907, National Antarctic Exped., Brit. Mus., 2: 1 [Antarctic seas].—Mörch, 1911, Proc. Zool. Soc. London, 1911: 61 [S. Atlantic: Patagonia; Falklands; South Shetlands; South Georgia; habits; movements].—Salvesen, 1914, Scottish National Antarctic Expedition, Zool., 4(19): 482, pl. 2, fig. 2 (animal) [S. Atlantic: Falklands; whaling industry].—Turner, 1915, Proc. Roy. Phys. Soc. Edinburgh, 35: 11, fig. 4 (tympanic bone) [S. Atlantic: Graham Land; tympanic bone].—Oliver, 1922, Proc. Zool. Soc. London, 1922: 558 [S. Pacific: New Zealand; synonyms: Balaena antipodarum Gray, Balaena hectori Gray, Macleavius australiensis Gray].-Miranda Ribeiro, 1931, Bull. Soc. Sci. Nat. Lisbonne, 11(11): 145 [S. Atlantic: Brazil (Bahia; Rio Grande do Sul; Paraná; Rio de Janeiro).—Townsend, 1935, Zoologica, 19(1): 9, chart C (map) [distribution based on logging records from 1735 to 1913].—Cabrera and Yepes, 1940, Mamíferos sudamericanos, p. 317, pl. 17 (animal) [characters; habits; distribution].—Yañez, 1948, Rev. Biol. Marina, Valparaiso, 1: 120 [S. Pacific: Chile].—Sapin-Jaloustre, 1953, Mammalia, 17: 234 [characters].

[Balaena] australis, Hershkovitz, 1961, Fieldiana, Zool., 39: 563 [southern hemisphere representative of Eubalaena glacialis].

Eubalæna australis, Gray, 1864, Proc. Zool. Soc. London, 1864: 202 [classification; tympanic bone].—Flower, 1864, Proc. Zool. Soc. London, 1864: 394 [characters of type of antarctica Schlegel]; 1866, Cat. seals and whales Brit. Mus., p. 91 [characters; habits]; 1873, Ann. Mag. Nat. Hist., (4), 11: 108 [classification; Balaena antarctica Gray a synonym].—Mathews, 1938, Discovery Rep., 17: 169, pls. 12–15 (animal), pl. 16 (vulvoanal groove, mammae, baleen), pl. 17 (surface movements) [characters; genitalia; food; parasites].—G. M. Allen, 1942, Extinct and vanishing mammals of the western hemisphere, p. 501 [history; habits; whaling; conservation].—Mann, 1957, Invest. Zool. Chilenas, 4: 97 [S. Pacific: Chile].—Pilleri, 1964, Acta Zool., 45 (3): 245 [brain morphology].

E[ubalaena] g[lacialis] australis, Tomilin, 1962, Cetacea of the U.S.S.R., Fauna U.S.S.R., 79: 86 [classification].

B[alæna] g[lacialis] australis, Scheffer and Rice, 1963, U.S. Fish and Wildlife Serv. Spec. Sci. Rep., 431: 9 [classification].

Balæna antarctica Lesson, 1828, Complément des oeuvres de Buffon, 1(Cétacés): 391 [name based on the "baleine du Cap" of Cuvier].—Gray, 1846, Zoology of the voyage of H. M. S. Erebus and Terror, 1(Mammalia): 15, pl. 1 (animal with caption Balæna antipodarum) [S. Pacific: New Zealand (Jackson Bay); animal described from drawing in Dieffenbach's "New Zealand"].—Gay, 1847, Hist. Chile, Zool., 1: 181 [S. Pacific: Chile].

Balana mysticetus antarctica, Schlegel, 1841, Abhandlungen aus dem Gebiete der Zoologie und vergleichenden Anatomie, 1(Cetaceen): 37 [part; S. Atlantic: South Africa (Cape of Good Hope); Brazil Bank (36° S.); Tristan da Cunha; S. Pacific: Chile (Coquimbo); Australia].

Balæna Antipodum Gray, 1843, in Dieffenbach, Travels in New Zealand, 2: 183, pl. 1 (with caption antipodarum) [S. Pacific: New Zealand (type locality); name based on figure of animal by Pollack].—Bolau, 1895, Hamburg Naturw. Verein, 13: 12, map [distribution].—Iredale and Troughton, 1934, Mem. Australian Mus., 6: 56 [S. Pacific: Australia (New South Wales; Tasmania); synonyms: Macleayius australiensis Gray, Balaena hectori Gray].

Balæna antipodarum Gray, 1843, in Dieffenbach, Travels in New Zealand, 2: 183, pl. 1 (animal) [name in caption of figure of animal described in text as Balaena antipodum]; 1846, Zoology of the voyage of H. M. S. Erebus and Terror, 1(Mammalia): pl. 1 (animal with name in caption) [characters (p. 16 under Balaena antarctica)].—Van Bénéden, 1868, Bull. Acad. Roy. Sci. Belgique, 25: 17 [distribution].—Van Bénéden and Gervais, 1880, Ostéographie des cétacés, p. 46, pl. 3 (skeleton) [osteology of skeleton in Paris museum; regarded as conspecific with B. australis].

Balæna (Caperea) antipodarum, Gray, 1864, Proc. Zool. Soc. London, 1864: 202 [characters; ear bones].

Caperea antipodarum, Gray, 1864, Proc. Zool. Soc. London, 1864: fig. 2, p. 203 (ear bones) [name combination in caption]; Gray, 1866, Cat. seals and whales Brit. Mus., p. 101] part; S. Pacific: New Zealand (Jackson Bay); animal described and figured in Dieffenbach, 1843; skeleton in Paris Museum]; 1871, Suppl. Cat. seals and whales Brit. Mus., p. 45 [part; skeleton in Paris Museum; australis Desmoulins in synonymy].—Flower, 1885, List Cetacea Brit. Mus., p. 4 [history].

Hunterus Temminckii Gray, 1864, Ann. Mag. Nat. Hist., (3), 14: 349 [new name for Balaena mysticetus antarctica Schlegel, 1841; type, skeleton of young in Leiden museum].

Hunterius [sic] Temminckii, Gray, 1866, Cat. seals and whales Brit. Mus., p. 98, fig. 8 (rib) [S. Atlantic: South Africa (Cape of Good Hope); characters; English translation of original description of Balaena mysticetus antarctica Schlegel, 1841].

Macleayius australiensis Gray, 1865, Proc. Zool. Soc. London, 1864: 589, figs. 1, 2 (cervical vertebrae) [S. Pacific: New Zealand (type locality); type, two cervical vertebrae in the Sydney Museum].— Van Bénéden, 1874, Bull. Mus. Roy. Belgique, (2), 37: 832 [taxonomic history; a synonym of Balaena australis].—Flower, 1885, List Cetacea Brit. Mus., p. 2 [type an articulated skeleton, Brit. Mus., no.1588a—73.3.3.1, received 1873 from Dr. Haast].

Eubalæna Capensis Gray, 1866, Cat. seals and whales Brit. Mus., p. 91, fig. 6 (skull) [name based on the "baleine du Cap," juvenal of Cuvier, 1823].

B[alana] capensis Gray (not A. Smith), 1868, Synopsis whales and dolphins Brit. Mus., p. 1 (in synonymy of Eubalaena australis), pl. 1, fig. 3 (baleen with caption Balana capensis) [S. Atlantic: South Africa (Cape of Good Hope); baleen].

Balana hectori Gray, 1874, Ann. Mag. Nat. Hist., (4), 13: 56 [S. Pacific: New Zealand (type locality: Tory Channel)].

Balæna glacialis, Lahille (not Borowski), 1903, Bol. Centro Naval, 21: 377 [work not seen]; 1905, Rev. Jardín Zool., Buenos Aires, 1905, p. 70 [S. Pacific; skull in Buenos Aires Museum].—Castillo, 1906, Caza de la ballena en la Isla Santa María, Min. Industria, Santiago de Chile, p. 1, 3 [S. Pacific: Chile (Isla Santa María, Arauco); whaling].—Miranda Ribeiro, 1932, Bol. Mus. Nac. Rio de Janeiro, 8: 1, pl. 1 (cervical vertebrae), pls. 2, 3, 5, 6 (animal), pl. 4 (skeleton), pl. 7 (composite of animal) [S. Atlantic: Brazil (Bahia); Falklands; B. australis a synonym].—Fraser, in Norman and Fraser, 1938, Giant fishes, whales and dolphins, p. 211, fig. 61 (animal) [characters; habits; whaling; australis a local race].

Eubalana glacialis, Kellogg (part, not Müller), 1940, Nat. Geogr. Mag., 77(1):57, pl. 3 (animal), figs. p. 59 (jaw bones used for fences) [characters; habits; distribution (part)].—Mackintosh, 1946, Biol. Rev., 21: 61, 62 [part; 20° S.-60° S.; food; breeding; gestation].—Budker, 1959, Whales and whaling, p. 30, pl. 1 (animal) [characters; local races: japonica, biscayensis, antipodarum, australis].

Southern right whale, Marr, 1962, Discovery Rep., 32: 127 [krill feeding].

Type: Skeleton, Museum National d'Histoire Naturelle, Paris; collected by M. De Lalande in 1820.

Type locality: Algoa Bay, Cape of Good Hope, South Africa.

DISTRIBUTION: Southern hemisphere; from Antarctic Circle to Brazil (Rio Grande do Sul, possibly to Rio de Janeiro, 23° S., and purportedly as far north as Baía, 13° S.) in the western Atlantic, and to Walvis Bay, West Africa (22° S.), in the eastern Atlantic; in the western Pacific to New Zealand and Sydney, Australia; in the eastern Pacific to Coquimbo, Chile (30° S.), in the Indian Ocean from Algoa Bay, South Africa (34° S.), in the west to southwestern Australia (30° S.) in the east.

## Eubalaena glacialis glacialis Müller

"Baleine d'Islande," Brisson, 1756, Régne animal, p. 350.

B[alæna] glacialis Müller, 1776, Zool. Danicae prodr., p. 7.

Balana Glacialis, Borowski, 1781, Gemeinnüzzige Naturgeschichte des Thierreichs, 2(1): 18 [name based on "la baleine d'Islande" of Brisson, and the "nordcaper" of Norwegian whalers].

B[alæna] Glacialis, Bonnaterre, 1789, Tabl. Encycl. Méth. Cétologie, p. 3 [name based on the "nordcaper" of Norwegian whalers].

B[alaena] g[lacialis] glacialis, Scheffer and Rice, 1963, U.S. Fish and Wildlife Serv. Spec. Sci. Rep., 431: 9 [classification].

Eubalaena glacialis, Moore and Clark, 1963, Science, 141: 269 [N. Atlantic: Gulf of Mexico (off New Pass, Sarasota, Florida)].

Eubalaena glacialis glacialis, Tomilin, 1957, Mammals of eastern Europe and northern Asia, 9: 71 [N. Atlantic: Spitzbergen to Bahamas and Madeiras]; 1962, Cetacea of the U.S.S.R., Fauna U.S.S.R., 79: 82, fig. 21 (animal), fig. 22 (skull) [N. Atlantic: distribution; concentrations; movements; natural history].

Balæna islandica Gmelin, 1788, Syst. Nat., ed. 13, 1: 223 [name based on "la baleine d'Islande" of Brisson].

B[alæna] M[ysticetus] islandica, Kerr, 1792, Animal kingdom, p. 357 [the "nordcaper" of Iceland].

Balæna nordcaper Lacépède, 1804, Hist. Nat. cétacées, pp. xxxvi, 103, pls. 2, 3 (animal) [N. Atlantic (type locality: seas between Spitzbergen, Norway, Iceland; also in the Greenland seas;) name based on authors' accounts].

Balæna Biscayensis Eschricht, 1860, Rev. Mag. Zool., Paris, (2), 12: 229 [N. Atlantic: Spain (type locality: San Sebastián, stranded Jan. 17, 1854); type skeleton originally in the museum of Pamplona, Spain, now mounted in the Copenhagen Museum].—Van Bénéden and Gervais, 1868–1880, Ostéographie des cétacés, p. 90, pl. 7 (skeleton of type and bones of others).

Balæna Cisarctica Cope, 1865, Proc. Acad. Nat. Sci. Philadelphia, p. 168 [N. Atlantic: U.S.A. (type locality: Delaware River, opposite Philadelphia, on the coast of New Jersey); type a nearly complete skeleton of half-grown individual formerly in the Academy of Natural Sciences, Philadelphia, no. 2817, now in the U.S. National Museum].—True, 1904, Whalebone whales of the western North Atlantic, p. 79 [characters; type history].

Balæna Mysticetus var. angulata Gray, 1866, Cat. seals and whales Brit. Mus., p. 86, fig. 5 (ear bones) [N. Atlantic (type locality: Orkneys?); type, pair of ear bones in Brit. Mus.].—Flower, 1885, List Cetacea Brit. Mus., p. 2 [type, pair of tympanic bones, Brit. Mus., 338j; regarded

as a synonym of *B. mysticetus*].—Beddard, 1900, Book of whales, p. 133 [listed as a synonym of *B. australis*].

Hunterius svedenborgii Lilljeborg, 1867, Nova Acta Reg. Soc. Upsala, (3), 6(2): 35, pls. 9–11 [N. Atlantic: Sweden (type locality: Wanga, west Gotland); type, a subfossil skeleton in the Upsala University Museum]. Hunterius Swedenborgii [sic], Gray, 1871, Suppl. Cat. seals and whales Brit. Mus., p. 44 [characters].

Balæna mediterranea Gray, 1870, Ann. Mag. Nat. Hist., (4), 6: 198 [N. Atlantic (type locality: supposedly the Ile de Sainte Marguerite, Var, France, Mediterranean Sea, which is the locale of the "rorqual," Balænoptera mediterraneensis Lesson=B. physalus Linnaeus); named based on the fused cervical vertebrae figured by Lacépède (1804, Hist. Nat. Cétacées, pl. 7, fig. 1)]; 1871, Suppl. Cat. seals and whales Brit. Mus., p. 38 [listed].

Macleayius britannicus Gray, 1870, Ann. Mag. Nat. Hist., (4), 6: 200 [N. Atlantic: England (type locality: Lyme Regis, Dorsetshire); type, four cervical vertebrae, British Museum, no. 338f–53.1.5.2].

Balæna eubalæna Gray, 1871, Suppl. Cat. seals and whales Brit. Mus., p. 44 [name in synonymy of *Hunterius biscayensis;* attributed to Flower (1864, Proc. Zool. Soc. London, p. 391), who used the combination *Eubalæna australis* where cited].

Balæna Van Benediana Capellini, 1873, Mem. Accad. Sci. Inst. Bologna (3), 3: 12, ftn. (separate) [name based on fused cervical vertebrae figured by Lacépède (1804, Hist. Nat. Cétacées, pl. 7, fig. 1), and erroneously believed to be of the Ile de Sainte Marguerite whale represented by a skeleton in the Paris museum].

Balæna Van Benedeniana [sic], Fischer, 1881, Act. Soc. Linn. Bordeaux, (4), 35: 46 [history; name an emendation of benediana Capellini].

Balæna tarentina Capellini, 1877, Mem. Acad. Sci. Inst. Bologna (3), 7: 11 (separate), pl. 1 (animal), pl. 2 (ear bones), pl. 3 (cervical vertebrae, nasals, scapula, sternum, baleen) [N. Atlantic: Italy (type locality: Gulf of Taranto, Mediterranean Sea)].

Balæna euskariensis Real, 1890, La ballena euskara, Memoria . . . San Sebastián, p. 3 [work not seen].

Type: None in existence, name based on the North Atlantic "sild-qval," "lille-hval," or "Nord-Kaper" of Norwegian whalers and the primary bibliographic reference to Egede (1742, Des alten Grönlandes Naturell-historie, Kopenhagen, Chapter 6).

Type locality: North Cape, Norway; hence the name "nordcaper." Distribution: North Atlantic from Davis Straits, Newfoundland, and Gulf of St. Lawrence to the Bermuda Islands, South Carolina, probably the Bahamas, Florida, Gulf of Mexico, and, formerly, from Spitzbergen to the Madeiras and the Mediterranean Sea.

### Eubalaena glacialis japonica Lacépède

Balana japonica Lacépède, 1818, Mem. Mus. Hist. Nat., Paris, 4: 469, 473.—Gray, 1846, Zoology of the voyage of H.M.S. Erebus and Terror, 1 (Mammalia): 15 [characters ex the Japanese Balaena australis (sic= antarctica) of Temminck; japonica Lacépède regarded as the same].-Van Bénéden, 1868, Bull. Acad. Roy. Sci. Lettres Beaux Arts Belgique, (2), 25: 16 [N. Pacific: 40° N.-60° N. from east to west].—Hershkovitz, 1961, Fieldiana, Zool., 39: 561 [taxonomic history].

Eubalaena glacialis Omura, 1958, Sci. Rep. Whales Res. Inst. Tokyo, 13: 1 (name, p. 50), figs. 2, 4-8, 13 (external characters; lice), figs. 15, 16 (baleen), fig. 17 (penis), figs. 18, 21 (skull, cranial bones), figs. 22-24, 26 (vertebrae), fig. 27 (sternum, hyoid bones); pl. 1 (animal); pls. 2-4 (skull); pls. 5, 6 (vertebrae); pls. 7, 8, fig. 1 (ribs); pl. 8, fig. 2 (flipper skeleton) [N. Pacific: Japan; seasonal migrations; external characters; osteology; comparisons; taxonomic history; regarded as conspecific with North Atlantic right whale].

Eubalaena glacialis japonica, Imaizumi, 1958, Nat. Sci. and Mus. Tokyo, 25(11-12): 13 [N. Pacific: Japan; skeleton in Natural Sciences

Museum].

Balana lunulata Lacépède, 1818, Mem. Mus. Hist. Nat., Paris, 4: 473 [name based on a Japanese drawing of a right whale].

Balaena Kuliomoch Chamisso, 1825, Nova Acta Acad. Cesarae Leopoldino-Caroliae, Nat. Cur., 12: 254, pl. 17, fig. 1 (wooden carving of animal) [N. Pacific (type locality: Bering Sea); name based on wooden carving by Aleuts].-Gray, 1870, Ann. Mag. Nat. Hist., (4), 6: 202 [listed].

Balana cullamach [sic], Cope, 1868, Proc. Acad. Nat. Sci. Philadelphia, 20: 225 [misspelling or emendation of kuliomach Chamisso; characters]; 1869, Proc. Acad. Nat. Sci. Philadelphia, 21: 38 [N. Pacific: right whale of the northwest coast; characters].

Balana culammak [sic], Gray, 1870, Ann. Mag. Nat. Hist., (4), 6: 202 [misspelling of cullamach Cope and attributed to Pallas (1811, Zoogeogr. Russo-Asiatica, 1: 288), who used only the vernacular].

B[alæna] cullamacha [sic], Beddard, 1900, Book of whales, p. 133 [listed as

synonym of *B. australis* Desmoulins].

Balana antarctica, Temminck (not Lesson, 1828), 1840 or 1841, Fauna japonica, p. 18, pls. 28, 29 (animal) [N. Pacific: Japan; characters; local names: "sebi kuzira," "ko-kuzira"].

Balænoptera [sic] antarctica, Temminck (not Temminck, op. cit., p. 21, pl. 30), 1841, Fauna japonica, pl. 28, caption [a lapsus for Balaena].

Balæna mysticetus antarcticus, Schlegel (part, not Lesson, 1828), 1841, Abh. Zool. Vergleich. Anat., 1(Cetaceen): 37 [N. Pacific: Japan; characters; taxonomy].

Balæna Sieboldii Gray, 1864, Ann. Mag. Nat. Hist., (3), 14: 349 [N. Pacific: Japan (type locality); new name for Balaena japonica Gray, not Lacépède, "which is differently colored from the one figured by Temminck"].

Eubalæna Sieboldii, Gray, 1868, Synopsis whales and dolphins Brit. Mus., p. 1 [synonymy].

Eubalæna glacialis sieboldii, Tomilin, 1957, Mammals of eastern Europe and northern Asia, 9: 75 [N. Pacific: Bering and Okhotsk Seas to East China Sea (25° N.); synonyms: "cullamach Pallas" [not a Linnaean name], kuliomach Chamisso, japonica Gray, aleoutiensis Van Bénéden]; 1962, Cetacea of the U.S.S.R., Fauna U.S.S.R., 79: 86 [N. Pacific: U.S.A. (Alaska); Okhotsk, Japan, Yellow and East China Seas; Taiwan; Bonin; movements; natural history].

Balæna aleoutiensis Van Bénéden, 1865, Bull. Acad. Roy. Bruxelles, 20: 854 [N. Pacific (type locality: 40° N.-60° N.); ms. name proposed by Meyer for the "nordwest" or "nord-ouest" whale of the North Pacific].

B[alæna] alutiensis [sic], Beddard, 1900, Book of whales, p. 133 [listed as synonym of B. australis Desmoulins].

Balæna australis, Flower (part, not Desmoulins), 1885, List Cetaceans Brit. Mus., p. 3 [N. Pacific: U.S.A. (Sandwich Islands=Hawaii)].

Type: Description based on a colored figure by a Japanese artist.

Type locality: Japan.

DISTRIBUTION: North Pacific from Bering and Okhotsk Seas to Baja California, Hawaii, Japan, Yellow and East China Seas, Taiwan, Bonin.

#### Genus BALAENA Linnaeus

Balæna Linnaeus, 1758, Syst. Nat., ed. 10, 1: 75 [included species: mysticetus, physalus (=Balaenoptera physalus), boops (=Balaenoptera physalus), musculus (=Balaenoptera musculus)].

Balaena Kellogg, 1928, Quart. Rev. Biol., 3: 33 et seq. [history; relationships].—Winge, 1942, Interrelat. Mamm. Gen., 3: 238, 278 [characters; classification].—Scheffer and Rice, 1963, U.S. Fish and Wildlife Serv. Spec. Sci. Rep., 431 [Eubalaena Gray a synonym].

Balena Scopoli, 1777, Introductio ad historium naturalem, p. 486 [emendation of Balena Linnaeus].

Balana Lesson, 1842, Nouv. Tabl. Reg. Anim., p. 202 [emendation of Balana Linnaeus].

Leiobalæna Eschricht, 1849, K. Danske Vidensk. Selsk. Skrifter Nat. Mat., Afd., (5), 1: 108 [type, the "glathvaler" or "rithvaler" of the northern seas (= Balaena mysticetus Linnaeus)].

Type Species: Balaena mysticetus Linnaeus by virtual tautonomy.

DISTRIBUTION: Arctic Ocean southward to Bering, Okhotsk, and Barents Seas and, formerly, the Sea of Japan in the North Pacific; and to the Gulf of St. Lawrence in the North Atlantic; also reported from off the coast of Massachusetts.

### Balaena mysticetus Linnaeus

Balæna Mysticetus Linnaeus, 1758, Syst. Nat., ed. 10, 1: 75.

Balaena mysticetus, Van Bénéden, 1887, Mem. Cour. Autr. Mem. Acad. Roy. Belgique, 40: 1 (separate) [characters; history; habits; whaling; parasites].—Fraser and Purves, 1960, Bull. Brit. Mus. (Nat. Hist.), Zool., 7: 35 et seq. [auditory system; classification].—Tomilin, 1962, Cetacea of the U.S.S.R., Fauna U.S.S.R., 79: 79 [U.S.S.R. (Barents to East Siberian, Chukshi and Bering Seas); Spitzbergen; Greenland; Ireland; Jan Meyen; Denmark; concentrations; movements; migrations; natural history; economics].—Jonsgård, 1964, Norsk Hvalf.—Tid., 53: 311 [Arctic: Barents Sea (west of Novaya Zemlya, 73°58' N., 49°20' E.); Spitzbergen (northwest, 79°48' N., 10°07' E.)].

Balæna Mysticetus groenlandica Kerr, 1792, Animal kingdom, p. 356 [N. Atlantic: Greenland (type locality)].

Balana borealis Lesson, 1828, Complément des oeuvres de Buffon, Cétacées, pp. 394, 442 (name) [new name for Balaena mysticetus Linnaeus].

Balaena mysticetus borealis, Knox, 1838, Catalogue of anatomical preparations illustrative of the whale, p. 21 [anatomical parts; exhibited in London].

Balæna mysticetus arctica Schlegel, 1841, Abhandlungen aus dem Gebiete der Zoologie und vergleichenden Anatomie, Leiden, 1: 36 [Arctic (type locality: ice cap south to 75° N.); type skull in the Leiden Museum, another in the Harlem Museum].

Balæna mysticetus Roysii Dall, 1874, in Scammon, Marine mammals, p. 305 [N. Pacific: U.S.S.R. (type locality: Okhotsk Sea); cf. Scammon, 1869, Proc. Acad. Sci. Phila., p. 33, for whaling data].

Balæna mysticetus pitlekajensis Malm, 1883, Bihang. K. Svenska Vet. Akad. Handl., (8), 4: 37 [N. Pacific: U.S.S.R. (type locality: Pitlek, northeastern Siberia)].

[Balæna mysticetus] pittekajensis [sic], Trouessart, 1904, Cat. Mamm., Suppl., p. 787 [classification].

Type: None in existence; name based on the Greenland right whale of whalers and authors.

Type locality: Greenland seas.

DISTRIBUTION: The same as for the genus.

## Incertae Sedis

## Amphiptera pacifica Giglioli

Amphiptera pacifica Giglioli, 1870, Note intorno alla distribuzione della Fauna vertebrata nell' oceano prese un viaggio intorno al Globo, R. Magenta, 1865–68, p. 76 [S. Pacific (type locality: 28°34′ S., 88°10′

W., west of San Felix Island, Chile); type seen at sea].—Giglioli, 1874, I cetacei observanti il viaggio intorno al globo della R. pirocorvetta Magenta, 1865–1868 [S. Pacific; characters].

Remarks: Described as a new genus and species of baleen whale characterized by two dorsal fins. Compare with Oxypterus mongitori Rafinesque and Delphinus rhinoceros Quoy and Gaimard.

#### Anarnak Lacépède

Anarnak Lacépède, 1804, Hist. Nat. Cétacées, pp. xxxviii, 164 [type species: Anarnak groenlandicus Lacépède (=Monodon spurius Fabricius, 1780, Fauna Groenlandica, p. 31) by monotypy].—Sonnini (Lacépède), 1804, Hist. Nat. Cétacées, pp. 35, 252.—Hershkovitz, 1961, Fieldiana, Zool., 39: 563 [incertae sedis; Ancylodon Illiger an objective synonym].

Anarnacus Duméril, 1806, Zool. Analytique, p. 28 [emendation of Anarnak Lesson].—Illiger, 1811, Prodr. Syst. Mamm., Avium, p. 142 [emendation of Anarnak Lacépède, 1804].

Ancylodon Illiger, 1811, Prodr. Syst. Mamm., Avium, p. 142 [new name for Anarnacus (sic) Lacépède; type species: Monodon spurius Fabricius].

#### Balaena mangidach Chamisso

Balæna Mangidach Chamisso, 1825, Nova Acta Acad. Cesarae Leopoldino-Carolinae Nat. Cur., 12(1): 257, pl. 18, fig. 4 (wooden carving of animal) [N. Pacific: U.S.A. (type locality: Aleutian islands); name based on wooden carvings of Aleuts; the *Aggamachschick* of Pallas a synonym].

Balæna agamachschik Cope, 1868, Proc. Acad. Nat. Sci. Philadelphia, 20: 225 [name attributed to Pallas (1811, Zoogeographia Russo-Asiatica, 1: 289), who used only the vernacular "Balæna, Aggamachschik dicta"].

Remarks: This species is regarded by Cope (supra cit.) and some later authors as identical with the gray whale, *Eschrichtius glaucus* Cope.

## Balaenoptera andrejewi author?

Balaenoptera Andrejewi author?, 1888, "Admonitio Piscaturae," pp. 197–211 [N. Pacific: U.S.S.R. (type locality: Murmansk, Siberia); cited here from Trouessart, 1898, Cat. Mamm., p. 1079, ftn. 1].

## Balaenoptera caerulescens

Balænoptera caerulescens Lacépède, 1818, Mem. Mus. Hist. Nat., Paris, 4: 473 [N. Pacific: Japan (type locality); name based on a Japanese drawing of a rorqual].

## Balaenoptera grimmi author?

Balaenoptera Grimmi author? 1888, "Admonitio Piscaturae," pp. 197–211 [N. Pacific: U.S.S.R. (type locality: Siberia); cited here from Trouessart, 1898, Cat. Mamm., p. 1079, ftn.].

#### Balaenoptera maculata Lacépède

Balaenoptera maculata Lacépède, 1818, Mém. Mus. Hist. Nat., Paris, 4: 473 [N. Pacific: Japan (type locality); name based on a Japanese drawing of a rorqual].

### Balaenoptera nigra Lacépède

Balaenoptera nigra Lacépède, 1818, Mém. Mus. Hist. Nat., Paris, 4: 473 [N. Pacific: Japan (type locality); name based on a Japanese drawing of a rorqual].—Tomilin, 1957, Mammals of eastern Europe and northern Asia, 9(Cetacea): 276 [listed in synonymy of Megaptera nodosa Bonnaterre (=M. novaeangliæ Borowski)].

### Balaenoptera punctulata Lacépède

Balaenoptera punctulata Lacépède, 1818, Mém. Mus. Hist. Nat., 4: 473 [N. Pacific: Japan (type locality); name based on a Japanese drawing of a rorqual].—Tomilin, 1957, Mammals of eastern Europe and northern Asia, 9(Cetacea): 276 [listed in synonymy of Megaptera nodosa Bonnaterre (= M. novaeangliae Borowski)].

### Delphinapterus senedetta Lacépède

Delphinapterus senedetta Lacépède, 1804, Hist. Nat. Cétacées, pp. xli, 249 [N. Atlantic: "paroit que le sénédette a été vu dans l'Océan et dans la Méditerranée"; name based on the "mular" or "sénédette" of Rondelet (1558, Hist. poissons, 1: livr. 16, chap. 10)].

Remarks: The species is characterized by the absence of a dorsal fin, and by a large throat, long pointed muzzle, nine teeth in each upper jaw, and at least eight in each lower. The animal is probably mythical.

## Delphinorhynchus Blainville

Delphinorhynchus Blainville, in Desmarest, 1817, Nouv. Dict. Hist. Nat., Paris, 9: 151 [subgenus of Delphinus; included species: D. geoffrensis Blainville (=Inia geoffrensis Blainville), D. coronatus Fréminville, D. shawensis Blainville (=Delphinus gangetica Lebeck 1801=Susu gangetica Lebeck), D. pernettensis Blainville (=Stenella pernettensis Blainville)].— Lesson, 1829, Manuel Mammal., p. 405 [genus].—Hershkovitz, 1961, Fieldiana, Zool., 39: 564 [incertae sedis; type species: D. coronatus Fréminville, by selection].

Rhamphocetus Gloger, 1841, Hand-Hilfsbuch Naturg., 1: xxxiv, 170 [type species: R. coronatus Fréminville (=Delphinus coronatus Fréminville), by monotypy].

## Delphinus bertini Desmarest

Delphinus bertini Desmarest, 1817, Nouv. Dict. Hist. Nat., 9: 163 [based on the "dauphin de Bertin" of Duhamel (1782, Traité général des pêches, pt. 2, sect. 10, p. 41, fig. 3, pl. 10).

Remarks: Regarded as possibly a sperm whale but could be "Risso's dolphin" as well.

#### Delphinus boryi Desmarest

Delphinus Boryi Desmarest, 1822, Mammalogie, p. 513 [Indian: (type locality: between Madagascar and the Mascarene Islands); type seen at sea].—Desmoulins, 1824, Dict. Class. Hist. Nat., 5: 356 (=556), pl. 161, fig. 1 (animal) [characters; color of figure only vaguely resembles description in text].

## Delphinus chilensis Philippi

Delphinus chilensis Philippi, 1896, Anal. Mus. Nac. Chile, Zool., Entr. 12a, p. 10, pl. 2, fig. 3 (foetus) [name based on a male foetus in alcohol; type locality not specified].—True, 1903, Proc. Biol. Soc. Washington, 16: 141, 143 ["probably either a Delphinus or a Prodelphinus (=Stenella)"].

## Delphinus coronatus Fréminville

Delphinus coronatus Fréminville, 1812, Bull. Soc. Philomatique Paris, 3: 71, fig. (animal) [N. Atlantic: Spitzbergen (type locality); description based on animals seen at sea].

#### Delphinus feres Bonnaterre

D[elphinus] Feres Bonnaterre, 1789, Tabl. Encycl. Méth. Cétologie, p. 27 [N. Atlantic: (type locality: Cambiers, at mouth of the Gulf of Grimaud, southeastern France, Mediterranean Sea); type skeleton said to have been preserved in the museum of the seminary of Fréjus].—Lesson, 1828, Complément des oeuvres de Buffon, p. 275 [comparison with D. compressicauda Lesson (=Phocoena phocoena Linnaeus); regarded as unidentifiable].

Delphinus feres, Fischer, 1881, Act. Soc. Linéenne, Bordeaux, (4), 35: 191 [probably Globicephalus melas (=Globicephala melaena Traill)].—Van Bénéden, 1886, Ann. Mus. Hist. Nat. Belgique, Paleontologie, 13: 103 [type skeleton lost during French Revolution].

Delphinus Bonnaterrei Tiedemann, 1808, Zoologie, 1: 583 [substitute name for D. feres Bonnaterre].

## Delphinus leucocephalus Lesson

Delphinus leucocephalus Lesson, 1826a, Voyage . . . la Coquille, Zool., 1: 184 [S. Pacific: Tuamotu Archipelago (type locality: Sugier Island)]; 1826b, Férussac Bull. Sci. Nat., 7: 373 [characters].

## Delphinus lunatus Lesson

Delphinus lunatus Lesson, 1826, Voyage . . . la Coquille, Zool., 1: 182–183, pl. 9, fig. 4 (animal seen at sea) [S. Pacific: Chile (type locality:

Bahía de Concepción, i.e., Talcahuano); name based on dolphins seen at sea]; 1834, Compléments Buffon, 1(Cétacés): 239 [S. Pacific: Talcaguana Bay, Concepción].—True, 1903, Proc. Biol. Soc. Washington, 16: 138, 143 [erroneously regarded as a name "not based on specimens"].—Cabrera, 1961, Rev. Mus. Argentino Cienc. Nat. Bernardino Rivadavia, 4: 619 ["perhaps a young individual" [of *Phocoena spinipinnis* Burmeister]].

Phocaena lunata Philippi, 1893, Anal. Mus. Nac. Chile, (1), Zool., 6: 11, pl. 3, fig. 3 (animal ex Lesson) [not identifiable with any known Chilean dolphin].

#### Delphinus maculatus Lesson and Garnot

Delphinus maculatus Lesson and Garnot, 1826, Voyage . . . la Coquille, Zool., 1: 183 S. Pacific: Tuamotu Archipelago (type locality: 18° S., 137° W. (Clermont-Tonnerre Island)); name based on animals seen at sea].—Lesson, 1826, Férussac Bull. Sci. Nat., 7: 395 [characters].

Delphinorhynchus maculatus, Lesson, 1828, Complément des oeuvres de Buffon, pp. 440 (name), 210 [characters].

#### Delphinus maculiventer Owen

Delphinus (Steno?) maculiventer Owen, 1846, Trans. Zool. Soc. London, 6(1): 21 [Indian: India (type locality: Vizagapatam, Madras, Bay of Bengal)].

?Sotalia maculiventer, Ellerman and Morrison-Scott, 1851, Checklist of Palaearctic and Indian mammals, p. 734, 780 [doubtfully included in Sotalia in text (p. 734) and index (p. 780)].

## Delphinus minimus Lesson

Delphinus minimus Lesson, 1826a, Voyage . . . la Coquille, Zool., 1: 185 [S. Pacific (type locality: near Solomon Islands); types, thousands of dolphins of which the largest did not exceed two feet in length, seen at sea about the ship]; 1826b, Férussac Bull. Sci. Nat., 7: 373 [characters].

## Delphinus niger Lacépède

Delphinus niger Lacépède, 1818, Mem. Mus. Nat. Hist., 4: 475 [N. Pacific: Japan (type locality); name based on a Japanese drawing of a dolphin].

## Delphinus rhinoceros Quoy and Gaimard

Delphinus rhinoceros Quoy and Gaimard, 1824, Voyage Uranie, Zool., p. 86, pl. 11, fig. 1 (animal) [N. Pacific (type locality: 5°28′ N., between the Hawaiian Islands and Australia); type an animal seen at sea].

Oxypterus rhinoceros, Lesson, 1827, Manuel Mamm., p. 411 [classification]; 1828, Complément des oeuvres de Buffon, p. 249 [characters].

Remarks: Described as twice the size of a common porpoise and with two dorsal fins.

#### Delphinus siculus Rafinesque

Delphinus siculus Rafinesque, 1810, Caratteri di alcuni nuovi gen. et sp. anim. et piant. della Sicilia, p. 5 [N. Atlantic: Italy (type locality; Sicily, Mediterranean Sea); work not seen].—True, 1903, Proc. Acad. Nat. Sci. Philadelphia, p. 314 ["probably . . . same as Tursiops truncatus"].

#### Delphinus tursio Fabricius

Delphinus tursio Fabricius, 1780, Fauna Groenlandica, p. 49 [N. Atlantic: Greenland (type locality: on the high seas); type a composite of descriptions from authors and the "nesarnak" of Greenland Eskimos].—
True, 1903, Proc. Acad. Nat. Sci. Philadelphia, p. 313 [not a Tursiops].

Delphinus nesarnac Lesson, 1827, Manuel Mamm., p. 408 [new name for Delphinus tursio Fabricius (not D. nesarnack Lacépède, 1804)].

[Delphinus] Fabricii, Billberg, 1828, Synopsis faunæ Scandinaviæ, p. 34 [new name for Delphinus tursio Fabricius].

#### Epiodon Rafinesque

Epiodon Rafinesque, 1814, Précis des découvertes et travaux somiologiques . . . p. 13 [type species: Epiodon urganantus Rafinesque].

## Epiodon urganantus Rafinesque

Epiodon urganantus Rafinesque, 1814, Précis des découvertes et travaux somiologiques . . . p. 13 [Italy (type locality: Sicily, Mediterranean Sea); type seen at sea].

Delphinus epiodon Desmarest, 1822, Mammalogie, p. 521 [new name for Epiodon urganantus Rafinesque].

Remarks: Described as a new genus and species. Whatever the animal may be, it positively is not a goose-beaked whale or any hyperoodontid (with which it is classified by modern authors). *Epiodon urganantus* is described as lacking a dorsal fin, having several upper but no lower teeth, and its upper jaw extending forward beyond the lower.

## Monodon spurius Fabricius

Monodon spurius Fabricius, 1780, Fauna Groenlandica, p. 31 [N. Atlantic (type locality: the Greenland seas); name based on the "anarnak" of Greenland].

Anarnak groenlandicus Lacépède, 1804, Hist. Nat. Cétacées, pp. xxxviii, 164 [new generic and specific names for Monodon spurius Fabricius based on the Greenland "anarnak"].—Sonnini (Lacépède), 1804, Nat. Hist. Cétacées, pp. 35, 252.

Delphinus anarnacus Desmarest, 1822, Mammalogie, p. 520 [new name for Monodon spurius Fabricius based on the "anarnac" of Greenland].

### Oxypterus Rafinesque

Oxypterus Rafinesque, 1814, Précis des . . . somiologie, p. 13 [type species: O. mongitori Rafinesque, by monotypy].

Dipterocetus Gloger, 1842, Hand- und Hilfsbuch der Naturgeschichte, 1: xxxiv, 169 [type species: D. mongitori Rafinesque, by monotypy].

### Oxypterus mongitori Rafinesque

Oxypterus mongitori Rafinesque, 1814, Précis des . . . somiologie, p. 13 [Mediterranean Sea (type locality)].

Remarks: Entire description is "à deux nageoires dorsales."

# Glossary of Cetacean Vernacular Names

Unless otherwise indicated, the language of the vernacular name is English. The Latin alphabet is used throughout.

Abugulikh (Aleutian). Balaenoptera musculus Linnaeus.

Afale (Turkish). Tursiops truncatus Montagu.

Afalina (Russian). Tursiops truncatus Montagu.

Agalagitakg (Aleutian). Balaenoptera borealis Lesson.

Agamakhchik (Aleutian). Balaenoptera acutorostrata Lacépède.

Agdagig (Aleutian). Physeter catodon Linnaeus.

Aggadakhgik (Aleutian). Physeter catodon Linnaeus.

Agidagikh (Aleutian). Physeter catodon Linnaeus.

Agkhovik (Alaskan Eskimo). Balaena mysticetus Linnaeus.

Agluk (Aleutian). Orcinus orca Linnaeus.

Ag-tkha-Gikh (Aleutian). Physeter catodon Linnaeus.

Aguluk (Aleutian). Orcinus orca Linnaeus.

Akago-kujira (Japanese). Ziphius cavirostris Cuvier.

Akan (Lapp, old name). Orcinus orca Linnaeus.

Akbek (Greenland Eskimo). Balaena mysticetus Linnaeus.

Akhgyopik (Chukotski Peninsula Eskimo). Balaena mysticetus Linnaeus.

Akhvokhrikh (Chukchi Peninsula Eskimo). Balaenoptera musculus Linnaeus.

Aladak (Aleutian). Phocoena phocoena Linnaeus.

Alagikkh (Aleutian). Phocoena phocoena Linnaeus.

Albrzymi delfin (Polish). Globicephala melaena Traill.

Aliama. Megaptera novaeangliae Borowski.

Aliamak (Commander Islands Aleutian). Megaptera novaeangliae Borowski.

Aliomach. Megaptera novaeangliae Borowski.

Alkhiamak (Commander Islands Aleutian). Megaptera novaeangliae Borowski.

Allamak (Commander Islands Aleutian). Megaptera novaeangliae Borowski.

Amazon River dolphin. Inia geoffrensis Blainville.

Amazonian dolphin. Inia geoffrensis Blainville; Sotalia fluviatilis Gervais and Deville.

Anarnac (Greenland Eskimo). Hyperoodon ampullatus Forster; incertae sedis.

Anarnak. Hyperoodon ampullatus Forster; incertae sedis.

Anarnak zobatý (Czech). Hyperoodon ampullatus Forster.

Andarnefia (Icelandic). Hyperoodon ampullatus Forster.

Andehval (Norwegian). Hyperoodon ampullatus Forster.

Andhvaler (Icelandic). Hyperoodon ampullatus Forster.

Andvhalar. Hyperoodon ampullatus Forster.

Angaigik (Kurile coast Aleutian). Delphinus delphis Linnaeus.

An-Gai-Gikkh (Aleutian coast Aleutian). Phocoenoides dalli True.

Antarctic bottlenose. Hyperoodon planifrons Flower.

Antokhak (Chukhatski Peninsula Eskimo). Eschrichtius gibbosus Erxleben.

Apupu (Jivara-Aguaruna [Peruvian]). Inia geoffrensis Blainville.

Arbavirsoak (Greenland Eskimo). Balaena mysticetus Linnaeus.

Arbek (Greenland Eskimo). Balaena mysticetus Linnaeus.

Arctic right whale. Balaena mysticetus Linnaeus.

Arctic whale. Balaena mysticetus Linnaeus.

Ardlursak (Greenland Eskimo). Orcinus orca Linnaeus [male].

Ardlusarsuk (Greenland Eskimo). Delphinus delphis Linnaeus.

Ardlyk (Greenland Eskimo). Orcinus orca Linnaeus [female].

Arnoux's beaked whale. Berardius arnuxi Duvernoy.

Atlantic beaked whale. Mesoplodon densirostris Blainville.

Atlantic blackfish. Globicephala melaena Traill.

Atlantic bottle-nosed dolphin. Tursiops truncatus truncatus Montagu.

Atlantic dolphin. Delphinus delphis Linnaeus.

Atlanticheski remhezub (Russian). Mesoplodon bidens Sowerby.

Atlantic killer whale. Orcinus orca Linnaeus.

Atlantic right whale. Eubalaena glacialis glacialis Müller.

Atlantic white-sided dolphin. Lagenorhynchus acutus Gray.

Azovka (Russian). Phocoena phocoena Linnaeus.

Azovskii delfin (Russian). Phocoena phocoena Linnaeus.

Bagwhale. Balaenoptera acutorostrata Lacépède.

Baird's beaked whale. Berardius bairdi Stejneger.

Baleine (French). Balaena mysticetus Linnaeus.

Baleine à bec (French). Balaenoptera acutorostrata Lacépède; Hyperoodon ampullatus Forster.

Baleine à bosse (French). Megaptera novaeangliae Borowski.

Baleine américaine (French). Balaenoptera physalus Linnaeus.

Baleine à six bosses (French). Eschrichtius gibbosus Erxleben.

Baleine à taquet (French). Megaptera novaeangliae Borowski.

Baleine blanche (French). Delphinapterus leucas Pallas.

Baleine bleue (French). Balaenoptera musculus Linnaeus.

Baleine de Basques (French). Eubalaena glacialis glacialis Müller.

Baleine de Biscaye (French). Eubalaena glacialis glacialis Müller.

Baleine de grande baie (French). Balaena mysticetus Linnaeus.

Baleine d'Islande (French). Eubalaena glacialis glacialis Müller.

Baleine des Basques (French). Eubalaena glacialis glacialis Müller.

Baleine d'été (French). Balaenoptera acutorostrata Lacépède.

Baleine d'Islande (French). Eubalaena glacialis glacialis Müller.

Baleine d'Ostend (French). Balaenoptera musculus Linnaeus.

Baleine du Cap (French). Eubalaena glacialis australis Desmoulins.

Baleine du Groenland (French). Balaena mysticetus Linnaeus.

Baleine franche (French). Balaena mysticetus Linnaeus.

Baleine franche naine (French). Caperea marginata Gray.

Baleine grise (French). Eschrichtius gibbosus Erxleben.

Baleine japonaise (French). Eubalaena glacialis japonica Lacépède.

Baleine jubarte (French). Balaenoptera musculus Linnaeus.

Baleine noire (French). Balaenoptera borealis Lesson.

Baleine tampon (French). Megaptera novaeangliae Borowski.

Ballena (Spanish). Eubalaena glacialis glacialis Müller.

Ballena azul (Spanish). Balaenoptera musculus Linnaeus.

Ballena boba (Spanish). Balaenoptera physalus Linnaeus; Balaenoptera borealis Lesson.

Ballena gris (Spanish). Eschrichtius gibbosus Erxleben.

Baltzivs (Latvian). Delphinapterus leucas Pallas.

Bardhvalir (Norwegian). Physeter catodon Linnaeus.

Bartfisch (Danish). Balaena mysticetus Linnaeus.

Bay whale. Balaenoptera acutorostrata Lacépède.

Beaked whale. Hyperoodon ampullatus Forster; any species of Hyperoodontidae.

Bec d'oie (French). Delphinus delphis Linnaeus.

Bechurinka (Kurile coast Aleutian). Delphinapterus leucas Pallas.

Belobochka (Russian). Delphinus delphis Linnaeus.

Belobokii delfin (Russian). Lagenorhynchus acutus Gray.

Belokrylka (Russian). Phocoenoides dalli True.

Belokrylaia morskaia svinia (Russian). Phocoenoides dalli True.

Belomordyi delfin (Russian). Lagenorhynchus albirostris Gray.

Belonosyi delfin (Russian). Lagenorhynchus albirostris Gray.

Belorylyi delfin (Russian). Lagenorhynchus albirostris Gray.

Beluga (Russian). Delphinapterus leucas Pallas.

Beluga. Delphinapterus leucas Pallas.

Beluha morska (Czech). Delphinapterus leucas Pallas.

Belukha (Russian). Delphinapterus leucas Pallas.

Berardius berda (Russian). Berardius bairdi Stejneger.

Besperaia morskaia svinia (Russian). Neophocaena phocaenoides Cuvier.

Besperyi delfin (Russian). Lissodelphis borealis Peale.

Bhulga (Mahr [Indian]). Neophocaena phocaenoides Cuvier.

Biscavan right whale. Eubalaena glacialis glacialis Müller.

Biscayrhval (Danish, Dutch). Eubalaena glacialis glacialis Müller.

Biskaiskit kit (Russian). Eubalaena glacialis glacialis Müller.

Biskay right whale. Eubalaena glacialis glacialis Müller.

Blaahval (Norwegian). Balaenoptera musculus Linnaeus.

Black dolphin. Cephalorhynchus eutropia Gray.

Black finless porpoise. Neophocaena phocaenoides Cuvier.

Black porpoise. Phocoena spinipinnis Burmeister.

Blackfish. Globicephala melaena Traill.

Black right whale. Eubalaena glacialis glacialis Müller.

Blahvalur (Icelandic). Balaenoptera musculus Linnaeus.

Blainville's beaked whale. Mesoplodon densirostris Blainville.

Blauwal (German). Balaenoptera musculus Linnaeus.

Blauwe vinvisch (Dutch). Balaenoptera musculus Linnaeus.

Blaval (Swedish). Balaenoptera musculus Linnaeus.

Blue dolphin. Stenella coeruleoalba Meyen.

Blue Rorqual. Balaenoptera musculus Linnaeus.

Blue whale. Balaenoptera musculus Linnaeus.

Blue-white dolphin. Stenella coeruleoalbus Meyen.

Bofo preto (Portuguese). Sotalia fluviatilis Gervais and Deville.

Bogenkopf (German). Balaena mysticetus Linnaeus.

Bolla gadimi (Telugu [Indian]). Sotalia lentiginosus Gray.

Bolshoi delfin (Russian). Tursiops truncatus truncatus Montagu.

Bolshoi plavun (Russian). Physeter catodon Linnaeus.

Bolshoi plevun (Russian). Physeter catodon Linnaeus.

Bolshoi polosatik (Russian). Balaenoptera musculus Linnaeus.

Borneo white dolphin. Sotalia borneensis Lydekker.

Boto (Portuguese). Inia geoffrensis Blainville; Tursiops truncatus Montagu.

Boto pretinho (Portuguese). Inia geoffrensis Blainville.

Boto preto (Portuguese). Sotalia fluviatilis Gervais and Deville.

Botskop. Orcinus orca Linnaeus.

Bottle-head. Hyperoodon ampullatus Forster.

Bottlenose dolfin. Tursiops truncatus Montagu.

Bottle-nosed dolphin. Tursiops truncatus Montagu.

Bottlenose whale. Hyperoodon ampullatus Forster.

Bottlenosed whale. Hyperoodon ampullatus Forster.

Bottlenosen (Norwegian). Hyperoodon ampullatus Forster.

Bouto (Portuguese). Inia geoffrensis Blainville.

Boutu (Portuguese). Inia geoffrensis Blainville.

Bowhead. Balaena mysticetus Linnaeus.

Bowhead whale. Balaena mysticetus Linnaeus.

Braunfisch (German). Cephalorhynchus heavisidii Gray; Grampus griseus Cuvier; Phocoena phocoena Linnaeus.

Brazilian dolphin. Sotalia brasiliensis E. Van Bénéden.

Breitmaulige Finnfisch (German). Balaenoptera musculus Linnaeus.

Bridled dolphin. Stenella frontalis Cuvier.

Broad-beaked dolphin. Lagenorhynchus electra Gray.

Bruinvis (Dutch). Phocoena phocoena Linnaeus.

Bruinvisch (Dutch). Phocoena phocoena Linnaeus.

Brunskop (Icelandic). Phocoena phocoena Linnaeus.

Bryde's whale. Balaenoptera edeni Anderson.

Buckelhval (Danish). Megaptera novaeangliae Borowski.

Buckelwal (German). Megaptera novaeangliae Borowski.

Bufeo (Spanish). Inia geoffrensis Blainville; Sotalia fluviatilis Gervais and Deville.

Bufeo negro (Spanish). Sotalia fluviatilis Gervais and Deville.

Bufo blanco (Spanish). Sotalia fluviatilis Gervais and Deville.

Bufo negro (Spanish). Sotalia fluviatilis Gervais and Deville.

Bultrug (Dutch). Megaptera novaeangliae Borowski.

Bunch. Megaptera novaeangliae Borowski.

Bunch whale. Megaptera novaeangliae Borowski.

Burdhvalir (Norwegian). Physeter catodon Linnaeus.

Burhvalur (Icelandic). Physeter catodon Linnaeus.

Burmeister's porpoise. Phocoena spinipinnis Burmeister.

Burtuk (Russian). Phocoena phocoena Linnaeus.

Butskop (Dutch). Hyperoodon ampullatus Forster.

Butskopf (German, Norwegian). Hyperoodon ampullatus Forster; Orcinus orca Linnaeus; Globicephala melaena Traill.

Butylkonos (Russian). Hyperoodon ampullatus Forster.

Buur-hval (Norwegian). Physeter catodon Linnaeus.

Caa'ing whale. Globicephala melaena Traill.

Caa'ng whale (Orkney and Shetland Islands). Globicephala melaena Traill.

Cachalot (French). Physeter catodon Linnaeus.

Cachalot à dents en faucille (French). Physeter catodon Linnaeus.

Cachalot à dents pointues (French). Physeter catodon Linnaeus.

Cachalot de la Nouvelle Angleterre (French). Physeter catodon Linnaeus.

Cachalote (Spanish). Physeter catadon Linnaeus.

Cachalot nain (French). Kogia breviceps Blainville.

Cachalot svineval (French). Globicephala melaena Traill.

Cachelot (French). Physeter catodon Linnaeus.

Calderón negro (Spanish). Globicephala melaena Traill.

Californian grey whale. Eschrichtius gibbosus Erxleben.

Camus (French). Delphinus delphis Linnaeus.

Cape dolphin. Stenella dubia G. Cuvier.

Capidoglio (Italian). Physeter catodon Linnaeus.

Capidolio (Italian). Balaenoptera physalus Linnaeus.

Capodoglio (Italian). Physeter catodon Linnaeus.

Cha-dakh (Pribilof Islands Aleutian). Berardius bairdi Dahl.

Chaudron (French). Globicephala melaena Traill.

Chernaia kosatka or kasatka (Russian). Pseudorca crassidens Owen.

Chernyi delfin (Russian). Tursiops truncatus Montagu; Globicephala melaena Traill.

Cheshkhak (Russian, old name used by the Kamchadales). Berardius bairdi Stejneger.

Chiduk (Bering Straits Aleutian). Berardius bairdi Stejneger.

Chigat (Russian, old name used by the Kamchadales). Physeter catodon Linnaeus.

Chikagulik (Eskimo, Chukotski Peninsula, Alaska and Greenland). Balaenoptera acutorostrata Lacépède.

Chikakhluk (Aleutian). Eschrichtius gibbosus Erxleben.

Chinese river dolphin. Lipotes vexillifer Miller.

Chinese lake dolphin. Lipotes vexillifer Miller.

Chinese white dolphin. Sotalia chinensis Osbeck.

Chumchugagakh (Aleutian). Ziphius cavirostris Cuvier.

Chumchugaiak (Aleutian). Ziphius cavirostris Cuvier.

Chushka (Russian). Phocoena phocoena Linnaeus.

Coalfish whale. Balaenoptera borealis Lesson.

Commerson's dolphin. Cephalorhynchus commersoni Lacépède.

Common blackfish. Globicephala melaena Traill.

Common bottlenose dolphin. Tursiops truncatus Montagu.

Common bottlenose whale. Hyperoodon ampullatus Forster.

Common dolphin. Delphinus delphis Linnaeus.

Common finback whale. Balaenoptera physalus Linnaeus.

Common finwhale. Balaenoptera physalus Linnaeus.

Common ocean dolphin. Delphinus delphis Linnaeus.

Common pilot whale. Globicephala melaena Traill.

Common porpoise. Phocoena phocoena Linnaeus.

Common rorqual. Balaenoptera physalus Linnaeus.

Common whale. Balaena mysticetus Linnaeus.

Cowfish. Mesoplodon Gervais.

Cullamach (Aleutian). Eubalaena glacialis japonica Lacépède.

Cupocaru (Japanese). Balaenoptera acutorostrata Lacépède.

Cuvier's beaked whale. Ziphius cavirostris Cuvier.

Cuvier's porpoise. Stenella frontalis G. Cuvier.

Cuvier's whale. Ziphius cavirostris Cuvier.

Dall porpoise. Phocoenoides dalli True.

Dall's porpoise. Phocoenoides dalli True.

Dalnevostochnyi butylkonos (Russian). Berardius bairdi Stejneger.

Dalnevostochnyi korotkogolovyi (Russian). Lagenorhynchus obliquidens Gill.

Darfeel (Kuwait). Sotalia plumbea G. Cuvier.

Dauphin (French). Any of the smaller species of Odontoceti (see also dolphin, delfin, etc.).

Dauphin à bande fauve (French). Delphinus delphis Linnaeus.

Dauphin à 140 dents (French). Stenella dubius G. Cuvier.

Dauphin à long bec (French). Steno bredanensis Lesson.

Dauphin à museau court (French). Lagenorhynchus cruciger Quoy and Gaimard.

Dauphin à museau grêle (French). Inia geoffrensis Blainville.

Dauphin à petit pectoral (French). Stenella malayana Lesson.

Dauphin à rostre blanc (French). Lagenorhynchus albirostris Gray.

Dauphin à ventre rouge (French). Stenella longirostris Gray.

Dauphin blanc (French). Delphinapterus leucas Pallas.

Dauphin bridé (French). Stenella frontalis Cuvier.

Dauphin de Bertin (French). Delphinus bertini Desmarest [incertae sedis].

Dauphin commun (French). Delphinus delphis Linnaeus. Dauphin de Cuvier (French). Grampus griseus G. Cuvier.

Dauphin de Dale (French). Mesoplodon bidens Sowerby.

Dauphin d'Eschricht (French). Lagenorhynchus acutus Gray.

Dauphin de Honfleur (French). Hyperoodon ampullatus Forster.

Dauphin de Risso (French). Grampus griseus Cuvier.

Dauphin de Saint-Brieux (French). Globicephala melaena Traill.

Dauphin de Hâvre (French). Mesoplodon bidens Sowerby.

Dauphin nesarnak (French). Tursiops truncatus Montagu.

Dauphin pie (French). Cephalorhynchus commersoni Lacépède.

Dauphin pilote (French). Globicephala melaena Traill.

Dauphin ordinaire (French). Delphinus delphis Linnaeus.

Dauphin vulgaire (French). Delphinus delphis Linnaeus.

Déducteur (French). Globicephala melaena Traill.

Delfin-Belobochka (Russian). Delphinus delphis Linnaeus.

Delfin de La Plata (Spanish). Pontoporia blainvillei Gervais and d'Orbigny.

Delfin negro (Spanish). Cephalorhynchus eutropia Gray.

Delfin obecný (Czech). Delphinus delphis Linnaeus.

Delfin pospolity (Polish). Delphinus delphis Linnaeus.

Delfino (Italian). Delphinus delphis Linnaeus.

Delfiny-belobochka (Russian). Delphinus delphis Linnaeus.

Delphin (German, Norwegian, Swedish). Delphinus delphis Linnaeus.

Delphinaptère blanc (French). Delphinapterus leucas Pallas.

Devil fish. Eschrichtius gibbosus Erxleben.

Dickzachniger butzkopf (German). Pseudorca crassidens Owen.

Dlinnorukii polosatik (Russian). Megaptera novaeangliae Borowski.

Dögling (Danish and German). Hyperoodon ampullatus Forster.

Döglingur (Icelandic). Hyperoodon ampullatus Forster.

Döglink (Faroe Islands). Hyperoodon ampullatus Forster.

Dolffin (Norwegian). Delphinus delphis Linnaeus.

Dolfijn (Dutch). Delphinus delphis Linnaeus.

Dolfijn van Cuvier (Dutch). Ziphius cavirostris Cuvier.

Dolfijn van Gray (Dutch). Stenella caeruleoalbus Meyen.

Dolphin. Any delphinid except the species of *Phocoena* G. Cuvier and related genera (see porpoise).

Dolphin of the Irawadi. Orcaella brevirostris Gray.

Dorque (French, southern France). Orcinus orca Linnaeus.

Drivingwhale. Globicephala melaena Traill.

Dukulad (Kurile coast Aleutian). Orcinus orca Linnaeus.

Dusky dolphin. Lagenorhynchus cruciger Quoy and Gaimard.

Dvergretthval (Norwegian). Caperea marginata Gray.

Dverg-spermhval (Norwegian). Kogia breviceps Blainville.

Dvergvinvisch (Dutch). Balaenoptera acutorostrata Lacépède.

Dwergpotvis (Dutch). Kogia breviceps Blainville.

Dwergpotvisch (Dutch). Kogia breviceps Blainville.

Dwergvinvis (Dutch). Balaenoptera acutorostrata Lacépède.

Dwergvinvis (Dutch). Balaenoptera acutorostrata Lacépède.

Dwergvinvisch (Dutch). Balaenoptera acutorostrata Lacépède.

Dwergwalvis (Dutch). Caperea marginata Gray.

Eden's whale. Balaenoptera edeni Anderson.

Edinorog (Russian). Monodon monoceros Linnaeus.

Edinozub (Russian). Monodon monoceros Linnaeus.

Eenhornvis (Dutch). Monodon monoceros Linnaeus.

Enhornad hortand (Swedish). Monodon monoceros Linnaeus.

Entenwall (German). Hyperoodon ampullatus Forster.

Epaulard (French). Orcinus orca Linnaeus.

Epée de mer (French). Orcinus orca Linnaeus.

Euphrosyne dolphin. Stenella coeruleoalba Meyen.

European beaked whale. Mesoplodon europaeus Gervais.

Fakan (Lapp). Orcinus orca Linnaeus.

False killer whale. Pseudorca crassidens Owen.

Fann-fiskar-hydengen (Icelandic). Orcinus orca Linnaeus.

Feresa. Feresa attenuata Gray.

Fiborska (Nentsi). Delphinapterus leucas Pallas.

Fin whale. Balaenoptera physalus Linnaeus.

Finback whale. Balaenoptera physalus Linnaeus.

Finefisk (Norwegian). Balaenoptera physalus Linnaeus.

Finfish. Balaenoptera physalus Linnaeus.

Finhval (Norwegian). Balaenoptera physalus Linnaeus.

Finless black porpoise. Neophocaena phocaenoides Cuvier.

Finnback. Balaenoptera physalus Linnaeus.

Finner whale. Balaenoptera physalus Linnaeus.

Finnfisch (German). Balaenoptera physalus Linnaeus.

Finnfisk (Swedish). Balaenoptera physalus Linnaeus.

Finnhvaler (Icelandic). Balaenoptera physalus Linnaeus.

Finnval (German). Balaenoptera physalus Linnaeus.

Finqval (Norwegian). Balaena mysticetus Linnaeus.

Finval (Russian). Balaenoptera physalus Linnaeus.

Fin whale. Balaenoptera physalus Linnaeus.

Flat-headed bottle-nosed whale. Hyperoodon planifrons Flower.

Flosser (German). Mesoplodon bidens Sowerby.

Flounder's head. Hyperoodon ampullatus Forster.

Flower's bottle-nosed whale. Hyperoodon planifrons Flower.

Franciscana (Spanish). Pontoporia blainvillei Gervais and d'Orbigny.

Franciscano (Portuguese). Pontoporia blainvillei Gervais and d'Orbigny.

Furehvaler (Icelandic). Balaenoptera physalus Linnaeus.

Gadamu (Telugu [Indian]). Tursiops truncatus aduncus Ehrenberg.

Ganges River dolphin. Susu gangetica Lebeck.

Gangetic dolphin. Susu gangetica Lebeck.

Gemeiner Delphin (German). Delphinus delphis Linnaeus.

Gervais' beaked whale. Mesoplodon europaeus Gervais.

Gestreifter Delphin (German). Grampus griseus G. Cuvier.

Gevone vinvisch (Dutch). Balaenoptera physalus Linnaeus.

Gewone dolfijn (Dutch). Delphinus delphis Linnaeus.

Gewoone vinnvisch (Dutch). Balaenoptera physalus Linnaeus.

Giant bottlenosed whale. Berardius bairdi Stejneger.

Gibbar. Balaenoptera physalus Linnaeus.

Gik (Koryak dialect). Delphinapterus leucas Pallas.

Gill's bottle-nosed dolphin. Tursiops gillii Dall.

Gingko beaked whale. Mesoplodon ginkgodens Nishiwaki and Kamiya.

Glathvaler (Icelandic). Balaena mysticetus Linnaeus.

Globicéphale conducteur (French). Globicephala melaena Traill.

Globicéphale noir (French). Globicephala melaena Traill.

Goluboikit (Russian). Balaenoptera musculus Linnaeus.

Gondo kujira (Japanese). Globicephala melaena Traill.

Goose beaked whale. Ziphius cavirostris G. Cuvier.

Gorbach (Russian). Megaptera novaeangliae Borowski.

Gorbatyi kit (Russian). Megaptera novaeangliae Borowski.

Graffman's dolphin. Stenella graffmani Lönnberg.

Grähval (Norwegian). Eschrichtius gibbosus Erxleben.

Gramper (Dutch). Grampus griseus Cuvier.

Grampus. Grampus griseus G. Cuvier; Orcinus orca Linnaeus.

Grand souffleur (French). Tursiops truncatus Montagu.

Grand souffleur à bec d'oie (French). Hyperoodon ampullatus Forster.

Gräso whale (Swedish). Eschrichtius gibbosus Erxleben.

Grauwal (German). Eschrichtius gibbosus Erxleben.

Gräval (Swedish). Eschrichtius gibbosus Erxleben.

Gray's dolphin. Stenella coeruleoalbus Meyen.

Gray back. Eschrichtius gibbosus Erxleben.

Gray grampus. Grampus griseus Cuvier.

Gray whale. Eschrichtius gibbosus Erxleben.

Gray's white-sided dolphin. Lagenorhynchus thicolea Gray.

Grayze walvis (Belgian, Danish, Dutch). Eschrichtius gibbosus Erxleben.

Great blue whale. Balaenoptera musculus Linnaeus.

Great northern rorqual. Balaenoptera musculus Linnaeus.

Great polar whale. Balaena mysticetus Linnaeus.

Greenland right whale. Balaena mysticetus Linnaeus.

Grenlandskii kit (Russian). Balaenoptera mysticetus Linnaeus.

Grey whale. See Gray whale.

Griend (Dutch). Globicephala melaena Traill.

Grijze dolphin (Dutch). Grampus griseus G. Cuvier.

Grijze walvis (Belgian, Danish, Dutch). Eschrichtius gibbosus Erxleben.

Grijze walvisch (Dutch). Eschrichtius gibbosus Erxleben.

Grind (Danish). Globicephala melaena Traill; Grampus griseus G. Cuvier.

Grinde (Norwegian). Globicephala melaena Traill.

Grindhyal (Norwegian). Globicephala melaena Traill.

Grindhvalur (Icelandic). Globicephala melaena Traill.

Grindval (Swedish). Globicephala melaena Traill.

Grindwal (German). Globicephala melaena Traill.

Grindy (Russian). Globicephala melaena Traill.

Grinzehval (Norwegian). Globicephala melaena Traill.

Gröenlandshvalur (Icelandic). Balaena mysticetus Linnaeus.

Groenlandse Walvis (Dutch). Balaena mysticetus Linnaeus.

Groenlanse walvisch (Dutch, Belgian). Balaena mysticetus Linnaeus.

Grönlandhval (Danish). Balaena mysticetus Linnaeus.

Gronlandshval (Norwegian). Balaena mysticetus Linnaeus.

Gronlandskhval (Norwegian). Balaena mysticetus Linnaeus.

Grönlandsval (Swedish). Balaena mysticetus Linnaeus.

Grönlandswal (German). Balaena mysticetus Linnaeus.

Grosser Tümmler (German). Tursiops truncatus Montagu.

Guianan river dolphin. Sotalia guianensis P. J. Van Bénéden.

Gulf of California porpoise. Phocoena simus Norris and McFarland.

Gulf Stream beaked whale. Mesoplodon europaeus Gervais.

Guliogadokh (Komandores Islands Aleutian and Kamchadales dialect). Eubalaena glacialis japonica Lacépède [young forms].

Haa-hirningur (Icelandic). Orcinus orca Linnaeus.

Hahyrna (Icelandic). Orcinus orca Linnaeus.

Hai-chu (Chinese). Neophocaena phocaenoides G. Cuvier.

Halfisk (Danish, Norwegian). Balaena mysticetus Linnaeus.

Halvrgindehvaler (Danish). Grampus griseus G. Cuvier.

Handfiskar (Icelandic). Phocoena phocoena Linnaeus.

Hando iruka (Japanese). Tursiops truncatus Montagu.

Harbor porpoise. Phocoena phocoena Linnaeus.

Harbour porpoise. Phocoena phocoena Linnaeus.

Heaviside's dolphin. Cephalorhynchus heavisidii Gray.

Hector's beaked whale. Mesopolodon hectori Gray.

Hector's dolphin. Cephalorhynchus hectori Van Bénéden.

Heipe-reydur (Norwegian). Balaenoptera musculus Linnacus.

Herring hog. Phocoena phocoena Linnaeus.

Herring whale. Balaenoptera physalus Linnaeus.

Hiho (Assamese). Susu gangetica Lebeck.

Hnufubakur (Swedish). Megaptera novaeangliae Borowski.

Hochcöplige Tümmler (German). Tursiops truncatus Montagu.

Hocico de botella (Spanish). Hyperoodon ampullatus Forster.

Hofrung (Icelandic). Delphinus delphis Linnaeus.

Hokkyoku kujira (Japanese). Balaena mysticetus Linnaeus.

Hota al Thalmaha (Sinhala [Ceylon]). Ziphius cavirostris Cuvier.

Hotaulal (Sinhala [Ceylon]). Mesoplodon ginkgodens Nishiwaki and Kamiya.

Howling whale. Globicephala melaena Traill.

Hrafu-reydur (Swedish). Delphinapterus leucas Pallas.

Hrefna (Icelandic). Balaenoptera musculus Linnaeus.

Huisen (Icelandic). Delphinus delphis Linnaeus.

Huitingar (Icelandic). Delphinapterus leucas Pallas.

Hump-back. Megaptera novaeangliae Borowski.

Humpback whale. Megaptera novaeangliae Borowski.

Hunchbacked whale. Megaptera novaeangliae Borowski.

Hundfiscur (Icelandic). Delphinus delphis Linnaeus.

Hunfubaks (Icelandic). Balaenoptera physalus Linnaeus.

Huns-hval (Norwegian). Physeter catodon Linnaeus.

Huyding (Icelandic). Orcinus orca Linnaeus.

Hval (Norwegian). Balaena mysticetus Linnaeus.

Hvalfisk (Norwegian, Swedish). Balaena mysticetus Linnaeus.

Hvalhund (Danish). Orcinus orca Linnaeus.

Hvidfisk (Norwegian, Danish). Delphinapterus leucas Pallas.

Hvidnaese (Norwegian). Lagenorhynchus albirostris Gray.

Hvidhvalen (Danish). Delphinapterus leucas Pallas.

Hvidskaering (Danish). Lagenorhynchus acutus Gray.

Hvitagtik delphin (Swedish). Delphinapterus leucas Pallas.

Hvitfisk (Norwegian, Swedish). Delphinapterus leucas Pallas.

Hvitskjering (Norwegian). Lagenorhynchus acutus Gray.

Hvitsnutet springer (Norwegian). Lagenorhynchus albirostris Gray.

Hyperodon (French). Hyperoodon ampullatus Forster.

Iaponskii kit (Russian). Eubalaena glacialis japonica Lacépède.

Id (Norwegian). Eubalaena glacialis glacialis Müller.

Iina (Koryak dialect). Delphinapterus leucas Pallas.

Illhval (Icelandic). Monodon monoceros Linnaeus.

Indian finless porpoise. Neophocaena phocaenoides G. Cuvier.

Indian pilot whale. Globicephala melaena Traill.

Inia (Guarayo [Bolivia]). Inia geoffrensis Blainville.

Innuatu (Korean). Orcinus orca Linnaeus.

Irawadi dolphin. Orcaella brevirostris Gray.

Irrawaddy river dolphin. Orcaella bievirostris Gray.

Ishafs hvalfisk (Swedish). Eubalaena glacialis glacialis Müller.

Ise (Norwegian). Phocoena phocoena Linnaeus.

Isi-iruka (Japanese). Phocaenoides dalli True.

Itsu-kaku (Japanese). Monodon monoceros Linnaeus.

Ittiv (Chukchi dialect). Balaena mysticetus Linnaeus.

Iuzhnyi kit (Russian). Eubalaena glacialis japonica Lacépède.

Iuzhnyi kit (Russian). Eubalaena glacialis glacialis Müller.

Ivasevyi kit (Russian). Balaenoptera borealis Lesson.

Ivasevyi polosatik (Russian). Balaenoptera borealis Lesson.

Iwashi kujira (Japanese). Balaenoptera borealis Lesson; Balaenoptera edeni Anderson.

Iwasikuzira (Japanese). Balaenoptera borealis Lesson.

Jacobite (French). Cephalorhynchus commersonii Lacépède.

Japanese beaked whale. Mesoplodon ginkgodens Nishiwaki and Kamiya.

Japan finner. Balaenoptera borealis Lesson.

Japanwal (German). Eubalaena glacialis japonica Lacépède.

Jattenhval (Swedish). Balaenoptera musculus Linnaeus.

Jedinorogh morskoi (Russian). Monodon monoceros Linnaeus.

Jorobada (Spanish). Megaptera novaeangliae Borowski.

Jubarte (French). Megaptera novaeangliae Borowski.

Jumper. Lagenorhynchus acutus Gray.

Jurascuka (Latvian). Phocoena phocoena Linnaeus.

Kabara mulla (Sinhala [Ceylon]). Sotalia lentiginosus Gray.

Kaguo-kuzira (Japanese). Balaenoptera borealis Lesson.

Kaipokak (Bering Straits Eskimo). Megaptera novaeangliae Borowski.

Kaipoket uiiut (Chukchi dialect). Megaptera novaeangliae Borowski.

Kajippo (Japanese). Ziphius cavirostris Cuvier.

Kakhlim (Iakuts dialect). Balaena mysticetus Linnaeus.

Kaipuuliak (Chukchi dialect). Monodon monoceros Linnaeus.

Kaizilot (Dutch). Physeter catodon Linnaeus.

Kaliforniiskii kit (Russian). Eschrichtius gibbosus [rarer than Seryi kit].

Kaliforniske Graahval (Norwegian). Eschrichtius gibbosus Erxleben.

Kallilugvuk (northern Alaska Eskimo). Monodon monoceros Linnaeus.

Kallium (Evenki dialect). Balaena mysticetus Linnaeus.

Kamabire-sakamata (Japanese). Grampus griseus Cuvier.

Kama-iruka (Japanese). Lagenorhynchus obliquidens Gill. Karlikovyi Kashalot (Russian). Kogia breviceps Blainville.

Karlikovyi Polosatik (Russian). Balaenoptera acutorostrata Lacépède.

Kasatka (Russian). Orcinus orca Linnaeus.

Kascelot (Norwegian). Physeter catodon Linnaeus.

Kashalot (Russian). Physeter catodon Linnaeus.

Kaskelot (Danish, Norwegian). Physeter catodon Linnaeus.

Kauchikan uiiut (Chukchi dialect). Balaenoptera acutorostrata Lacépède.

Kegutilik (Greenland Eskimo). Physeter catodon Linnaeus.

Kelleluak-kakortok (Greenland Eskimo). Monodon monoceros Linnaeus.

Kentaen uiiut (Chukchi dialect). Eschrichtius gibbosus Erxleben.

Keporkak (Greenland Eskimo). Megaptera novaeangliae Borowski.

Keporkak dlouhoplautvý (Czech). Megaptera novaeangliae Borowski.

Keporkarnak (western Greenland Eskimo). Balaenoptera physalus Linnaeus.

Kernektok (Eskimo?). Monodon monoceros Linnaeus.

Khadakkh (Komandores Island Aleutian). Delphinapterus leucas Pallas.

Khi-tkhukkh (Aleutian). Megaptera novaeangliae Borowski.

Kigan-agaliusiak (Aleutian). Mesoplodon stejnegeri True.

Kigan-agaliuzokh (Aleutian). Mesoplodon stejnegeri True; Ziphius cavirostris Cuvier; Berardius bairdi Stejneger.

Kigitulik (Greenland Eskimo). Physeter catodon Linnaeus.

Kigutulik (Greenland Eskimo). Physeter catodon Linnaeus.

Kiit (Russian). Balaenoptera physalus Linnaeus.

Killeluak (Aleutian?). Delphinapterus leucas Pallas.

Killer. Orcinus orca Linnaeus.

Killer-trasher. Orcinus orca Linnaeus.

Killer whale. Orcinus orca Linnaeus.

Kiuverov kliuvoryl (Russian). Ziphius cavirostris Cuvier.

Kleiner Mörder (German). Pseudorca crassidens Owen.

Kleiner Tummler (German). Phocoena phocoena Linnaeus.

Knabbelvisch (Dutch). Eschrichtius gibbosus Erxleben.

Knobbelvisch (Dutch). Eschrichtius gibbosus Erxleben.

Knölhval (Norwegian). Megaptera novaeangliae Borowski.

Knölval (Swedish). Megaptera novaeangliae Borowski.

Knotenfisch (German). Eschrichtius gibbosus Erxleben.

Knurrwal (German). Megaptera novaeangliae Borowski.

Kobbe-Herre (Norwegian). Physeter catodon Linnaeus. Koiapchak (Koryak dialect). Physeter catodon Linnaeus.

Koiwashi kujira (Japanese). Balaenoptera acutorostrata Lacépède.

Koku kujira (Japanese). Eschrichtius gibbosus Erxleben.

Ko-kujira (Japanese). Eubalaena glacialis japonica Lacépède.

Komadwa (Senhala [Ceylon]). Pseudorca crassidens Owen.

Komakko (Japanese). Kogia breviceps Blainville.

Komandorskii remnezub (Russian). Mesoplodon stejnegeri True.

Komvokhgak (Chukolski peninsula Eskimo). Balaenoptera borealis Lesson.

Kosatka (Russian). Orcinus orca Linnaeus.

Kosatka dravá (Czech). Orcinus orca Linnaeus.

Kosemi kujira (Japanese). Caperea marginata Gray.

Kud-akh-tik (Aleutian). Phocoenoides dalli True.

Kuleluak (Greenland Eskimo). Delphinapterus leucas Pallas.

Kulema (Komandores Island Aleutian). Balaena mysticetus Linnaeus.

Kuliamiak (Komandores Island Aleutian). Balaena mysticetus Linnaeus.

Kuliomoch (Aleutian). Eubalaena glacialis japonica Lacépède.

Kuliomokh (Komandores Islands Aleutian and Kamchadal dialect). Eubalaena glacialis japonica Lacépède.

Kvov-kvov-e-akht-le (Maka tribe Indian dialect). Mesoplodon stejnegeri True.

Lagyiia-au (Koryak dialect of the Oliutorski Inlet). Eschrichtius gibbosus Erxleben.

La-maing (Burmese). Sotalia plumbea G. Cuvier.

Langarmvinwisch (Dutch). Megaptera novaeangliae Borowski.

Langsnuitdolfijn (Dutch). Lagenorhynchus acutus Gray.

La Plata dolphin. Pontoporia blainvillei d'Orbigny and Gervais.

Lomba-lomba (Malay). Orcaella brevirostris Gray.

Langreydur (Icelandic). Balaenoptera physalus Linnaeus.

Layard's beaked whale. Mesoplodon layardi Gray.

Lead-colored dolphin. Sotalia plumbea G. Cuvier.

Least rorqual. Balaenoptera acutorostrata Lacépède.

Leiftur (Icelandic). Lagenorhynchus acutus Gray.

Lesser cachalot. Kogia breviceps Blainville.

Lesser finback. Balaenoptera acutorostrata Lacépède.

Lesser grampus. Phocoena phocoena Linnaeus.

Lesser rorqual. Balaenoptera acutorostrata Lacépède; Balaenoptera borealis Lesson.

Lesser sperm whale. Kogia breviceps Blainville.

Licorne de mer (French). Monodon monoceros Linnaeus.

Lielaa-iuras-tsuuka (Latvian). Tursiops truncatus Montagu.

Lighval (Norwegian). Monodon monoceros Linnaeus.

Liljehval (Norwegian). Eubalaena glacialis glacialis Müller.

Lille-hval (Norwegian). Eubalaena glacialis glacialis Müller.

Little piked whale. Balaenoptera acutorostrata Lacépède.

Loddehval (Norwegian). Balaenoptera physalus Linnaeus.

Long-beaked dolphin. Stenella longirostris Gray.

Long-snouted dolphin. Stenella pernettensis Blainville.

Löpare (Swedish). Orcinus orca Linnaeus.

Mairuka (Japanese). Delphinus delphis [juvenile form].

Makko-kujira (Japanese). Physeter catodon Linnaeus.

Malaia kasatka (Russian). Pseudorca crassidens Owen.

Malaia kosatka (Russian). Pseudorca crassidens Owen.

Malyi kashalot (Russian). Kogia breviceps.

Malyi Plavun (Russian). Mesoplodon stejnegeri True.

Malyi Plevun (Russian). Mesoplodon stejnegeri True.

Malyi Polosatika kit (Russian). Balaenoptera acutorostrata Lacépède.

Mangak (Aleutian). Phocoena phocoena Linnaeus.

Mangidadakh (Komandores Is. Aleutian). Balaenoptera physalus Linnaeus [juvenile forms].

Mangidakh (Komandores Is. Aleutian). Balaenoptera physalus Linnaeus.

Maris sus (Latin). Phocoena phocoena Linnaeus.

Marsopa (Spanish, Portuguese). Phocoena dioptrica Lahille; Phocoena spinipinnis Burmeister.

Marsopa de anteojo (Spanish). Phocoena dioptrica Lahille.

Marsouin (French). Phocoena phocoena Linnaeus.

Marsouin blanc (French). Delphinapterus leucas Pallas.

Marsouin du Cap (French). Delphinus heavisidii Gray.

Marsouin franc (French). Phocoena phocoena Linnaeus.

Marsouin gris (French). Grampus griseus Cuvier.

Marsouin noir (French). Neophocaena phocaenoides Cuvier.

Marsvin (Danish, Swedish). Phocoena phocoena Linnaeus.

Marsvin (Icelandic). Globicephala melaena Traill.

Marsvün (Norwegian). Phocoena phocoena Linnaeus.

Mazuba-iruka (Japanese). Grampus griseus Cuvier.

Meerschwein (German). Phocoena phocoena Linnaeus.

Mégaptère (French). Megaptera novaeangliae Borowski.

Minke (Russian, borrowed from Norwegian). Balaenoptera acutorostrata Lacépède.

Minkehval (Norwegian). Balaenoptera acutorostrata Lacépède.

Minke whale. Balaenoptera acutorostrata Lacépède.

Minku (Japanese). Balaenoptera acutorostrata Lacépède.

Minkies hval (Norwegian). Balaenoptera acutorostrata Lacépède.

Mjaldur (Icelandic). Delphinapterus leucas Pallas.

Moine de mer (French). Delphinapterus leucas Pallas.

Molagan (Tamul, India). Neophocaena phocaenoides G. Cuvier.

Morskaia beluga (Russian). Delphinapterus leucas Pallas.

Morskaia svinia (Russian). Phocoena phocoena Linnaeus.

Morskaja bjelugla (Russian). Delphinapterus leucas Pallas.

Morskaja swinja (Russian). Phocoena dioptrica Lahille.

Muskel finnfisk (Swedish). Balaenoptera musculus Linnaeus.

Musonkjgyssiak (Eskimo and Chukchi dialect of Chukotski Peninsula). Orcinus orca Linnaeus.

Mussel Digger. Eschrichtius gibbosus Erxleben.

Mutur (Turkish). Phocoena phocoena Linnaeus.

Näbhval (Swedish). Hyperoodon ampullatus Forster.

Nabbad gomtand (Swedish). Hyperoodon ampullatus Forster.

Naebhval (Norwegian, Danish). Hyperoodon ampullatus Forster.

Nagasu-kujira (Japanese). Balaenoptera physalus Linnaeus.

Naiso-gota (Japanese). Globicephala melaena Traill.

Narhval (Danish, Norwegian). Monodon monoceros Linnaeus.

Narhvalur (Icelandic). Monodon monoceros Linnaeus. Narrow-snouted dolphin. Stenella dubia G. Cuvier.

Narval (French, Russian). Monodon monoceros Linnaeus.

Narval jednorohỳ (Czech). Monodon monoceros Linnaeus.

Narwal (German). Monodon monoceros Linnaeus.

Narwhal (English). Monodon monoceros Linnaeus.

Nastoiashchii Atlanticheskii kit (Russian). Eubalaena glacialis Müller.

Nastoiashchii kit (Russian). Eubalaena glacialis japonica Lacépède.

Nastoiashchii kliuvoryl (Russian). Ziphius cavirostris Cuvier.

Nastoiashchii polosatik (Russian). Balaenoptera physalus Linnaeus.

Nebhval (Norwegian). Hyperoodon ampullatus Forster.

Nesa (Norwegian). Phocoena phocoena Linnaeus.

Nezumi-iruka (Japanese). Phocoena phocoena Linnacus.

New Zealand beaked whale. Berardius [bairdi] arnuxi Duvernoy. Nezarnak (Greenland Eskimo). Tursiops truncatus Montagu.

Nezarnak (Greenland Eskimo). Turstops truncatus Montagu.

Nilchoken biuu (Chukchi dialect, northeast coast of Chukotski area). Balaenoptera physalus Linnaeus.

Niltkhokkein uiiut (Chukchi dialect, northeast coast of Chukotski area). Balaenoptera physalus Linnaeus.

Nisa (Norwegian). Phocoena phocoena Linnaeus.

Nise (Swedish, Norwegian). Phocoena phocoena Linnaeus.

Nitachi kujira (Japanese). Balaenoptera edeni Anderson.

Niza (Eskimo). Lagenorhynchus albirostris Gray.

Nomeno-juo (Japanese). Neophocaena phocaenoides Cuvier.

Nookur (Auns dialect on the Kurile crest). Orcinus orca Linnaeus.

Noordcaper (Danish, Dutch). Eubalaena glacialis glacialis Müller.

Noordische vinvisch (Dutch). Balaenoptera borealis Lesson.

Noordkaper (Dutch). Eubalaena glacialis glacialis Müller.

Noordsche vinvisch (Dutch). Balaenoptera borealis Lesson.

Noordse vinvis (Dutch). Balaenoptera borealis Lesson.

Nordatlantischer Glattwal (German). Eubalaena glacialis glacialis Müller.

Nordcapare (Swedish). Eubalaena glacialis glacialis Müller.

Nordcaper (German, Norwegian). Eubalaena glacialis glacialis Müller.

Nordkaper (German, Norwegian). Eubalaena glacialis glacialis Müller.

Nordhval (Danish, Norwegian). Eubalaena glacialis glacialis Müller.

Nordischer dolphin (German). Lagenorhynchus acutus Gray.

Nordkapskii kit (Russian). Eubalaena glacialis glacialis Müller.

Nordval (Swedish). Balaena mysticetus Linnaeus.

Nordvalur (Icelandic). Balaena mysticetus Linnaeus.

Nordwal (Icelandic, German). Balaena mysticetus Linnaeus.

Nord-west right whale. Eubalaena glacialis japonica Lacépède.

Nordweswal (German). Eubalaena glacialis japonica Lacépède.

North Atlantic blackfish. Globicephala melaena Traill.

North Atlantic right whale. Eubalaena glacialis glacialis Müller.

Northern bottlenosed whale. Hyperoodon ampullatus Forster.

Northern right whale. Eubalaena glacialis japonica Lacépède.

Northern right whale dolphin. Lissodelphis borealis Peale.

North Pacific black fish. Globicephala melaena sieboldi Gray.

North Pacific pilot whale. Globicephala melaena sieboldi Gray.

Nuppeloket-uiiut (Louravetlany dialect of the Mechigmenskaya Gulf, Bering Strait). Balaenoptera borealis Lesson.

Obyknovennyi delfin (Russian). Delphinus delphis Linnaeus.

Obyknovennyi polosatik (Russian). Balaenoptera physalus Linnaeus.

Ocean dolphins. Stenella Gray.

Ofalina (Russian). Tursiops truncatus Montagu.

Ogawa komakoku (Japanese). Kogia breviceps Blainville.

Ohanan gota (Japanese). Globicephala melaena Traill.

Oki (Kuriles Is. dialect). Delphinus delphis Linnaeus.

Okikondo (Japanese). Pseudorca crassidens Owen.

Olbrotowick (Polish). Physeter catodon Linnaeus.

Omgolia (Aleutian). Balaenoptera musculus Linnaeus.

Onchi-tolliau (Iukagir dialect). Balaena mysticetus Linnaeus.

Opare (Swedish). Orcinus orca Linnaeus.

Orca. Orcinus orca Linnaeus.

Oresvin (Swedish). Tursiops truncatus Montagu.

Oresvin Tantöje (German). Tursiops truncatus Montagu.

Orka. Orcinus orca Linnaeus.

Orque (French). Orcinus orca Linnaeus.

Orque épaulard (French). Orcinus orca Linnaeus.

Orque gladiateur (French). Orcinus orca Linnaeus.

Ostende whale. Balaenoptera musculus Linnaeus.

Ostrogolovyi polosatik (Russian). Balaenoptera acutorostrata Lacépède.

Ostromordyi polosatik (Russian). Balaenoptera acutorostrata Lacépède.

Ostrorylyi delfin (Russian). Lagenorhynchus acutus Gray.

Oudre (French). Tursiops truncatus Montagu.

Pacific beaked whale. Hyperoodon planifrons Flower.

Pacific blackfish. Globicephala melaena sieboldi Gray.

Pacific bottlenose dolphin. Tursiops gilli Dall.

Pacific dolphin. Delphinus delphis bairdi Dall.

Pacific gray whale. Eschrichtius gibbosus Erxleben.

Pacific harbor porpoise. Phocoena phocoena Linnaeus.

Pacific killer whale. Orcinus orca Linnaeus.

Pacific pilot whale. Globicephala melaena sieboldi Gray.

Pacific right whale. Eubalaena glacialis japonica Lacépède.

Pacific rightwhale porpoise. Lissodelphis borealis Lesson.

Pacific striped dolphin. Lagenorhynchus obliquidens Gill.

Pacific white-sided dolphin. Lagenorhynchus obliquidens Gill.

Pat-so-ol-qual (Indian, State of Washington). Globicephala melaena Traill.

Pechuga (Auns dialect, Kurile crest). Delphinapterus leucas Pallas.

Pei c'hi (Chinese). Lipotes vexillifer Miller.

Peis mular (French, southern). Delphinapterus senedetta Lacépède [incertae sedis].

Peixe-boto (Portuguese). Tursiops truncatus Montagu.

Penvisch (Dutch). Megaptera novaeangliae Borowski.

Pernetty's dolphin. Stenella pernettyi Blainville.

Petit cachalot (French). Physeter catodon Linnaeus.

Petit rorqual (French). Balaenoptera acutorostrata Lacépède.

Pflockfisch (German). Megaptera novaeangliae Borowski.

Pictwale (Scottish). Orcinus orca Linnaeus.

Piebald dolphin. Cephalorhynchus commersoni Lacépède.

Piglertok (Greenlandic). Phocoena phocoena Linnaeus.

Pigmy sperm whale. Kogia breviceps Blainville.

Piked whale. Balaenoptera acutorostrata Lacépède.

Pikehead whale. Balaenoptera acutorostrata Lacépède.

Pikewhale. Balaenoptera acutorostrata Lacépède.

Pilot whale. Globicephala melaena Traill.

Pirayaguara (Brazilian). Sotalia fluviatilis Gervais and Deville.

Plavun (Russian). Berardius bairdi Stejneger.

Plejtvák mysok (Czech). Balaenoptera physalus Linnaeus.

Plejvákovec cedy (Czech). Eschrichtius gibbosus Erxleben.

Plejtvák severný (Czech). Balaenoptera borealis Lesson.

Plejtvák stikovity (Czech). Balaenoptera acutorostrata Lacépède.

Pletwal (Polish). Megaptera novaeangliae Borowski.

Plevun (Russian). Berardius bairdi Stejneger.

Plewún. Physeter catodon Linnaeus.

Plumbeous dolphin. Sotalia plumbea G. Cuvier.

Polarwal (German). Balaena mysticetus Linnaeus.

Poliarskyi kit (Russian). Balaena mysticetus Linnaeus.

Pollack whale. Balaenoptera borealis Lesson.

Polosatyi prodelfin (Russian). Stenella coeruleoalbus Meyen.

Pomigra (Tamul). Delphinus delphis Linnaeus.

Porpoise. Cephalorhynchus commersoni Lacépède; Stenella Gray; Steno Gray; Neophocaena Palmer; Phocoenoides Andrews; Phocoena G. Cuvier [the vernacular "porpoise" is now generally restricted to species of the last three genera].

Potfisk (Norwegian). Physeter catodon Linnaeus.

Pothead whale. Globicephala melaena Traill.

Pottfisch (German). Physeter catodon Linnaeus.

Pottfisk (Norwegian, Swedish). Physeter catodon Linnaeus.

Pottwal (German). Physeter catodon Linnaeus.

Pottwisch (Dutch). Physeter catodon Linnaeus.

Potvis (Dutch). Physeter catodon Linnaeus.

Potvisch (Dutch). Physeter catodon Linnaeus.

Poursille (French). Phocoena phocoena Linnaeus.

Pseudorque (French). Pseudorca crassidens Owen.

Puckelval (Swedish). Megaptera novaeangliae Borowski.

Puffing pig. Cephalorhynchus commersoni Lacépède; Phocoena phocoena Linnaeus.

Pukhzak (Eskimo, Chukotski Peninsula). Delphinapterus leucas Pallas.

Pukhzak-tuudlik (Eskimo, Chukotski Peninsula). Monodon monoceros Linnaeus.

Puuliak (Chukchi dialect). Delphinapterus leucas Pallas.

Pygmy killer whale. Feresa attenata Gray.

Pygmy right whale. Caperea marginata Gray.

Pygmy sperm whale. Kogia breviceps Blainville.

Pykhtun (Russian). Phocoena phocoena Linnaeus.

Qval (Norwegian). Physeter catodon Linnaeus.

Rättval (Swedish). Balaena mysticetus Linnaeus.

Razor back. Balaenoptera physalus Linnaeus.

Rebbehval (Norwegian). Balaenoptera acutorostrata Lacépède.

Red-bellied dolphin. Stenella longirostris Gray.

Reider (Lapp). Balaenoptera physalus Linnaeus.

Remnezub soverbi (Russian). Mesoplodon bidens Sowerby.

Remnezub steinegera (Russian). Mesoplodon stejnegeri True.

Rengis fiskar (Icelandic). Balaenoptera Lacépède.

Rethval (Danish, Norwegian). Balaena mysticetus Linnaeus.

Ridge-backed dolphin. Sotalia plumbea G. Cuvier.

Riesenwal (German). Balaenoptera musculus Linnaeus.

Right whale. Balaena mysticetus Linnaeus; Eubalaena glacialis glacialis Müller.

Right whale dolphin. Lissodelphis borealis Peale.

Rikuzen-iruka (Japanese). Phocoenoides dalli True.

Rip sack. Eschrichtius gibbosus Erxleben.

Risso's dolphin. Grampus griseus Cuvier.

Risso's grampus. Grampus griseus Cuvier.

Rödkamm (Icelandic). Monodon monoceros Linnaeus.

Rogozub (Russian). Monodon monoceros Linnaeus.

Rorhval (Danish, Norwegian). Balaenoptera physalus Linnaeus.

Rorqual (French). Balaenoptera physalus Linnaeus; Balaenoptera musculus Linnaeus.

Rorqual à rostre (French). Balaenoptera acutorostrata Lacépède.

Rorqual à museau pointu (French). Balaenoptera acutorostrata Lacépède.

Rorqual à ventre cannelé (French). Balaenoptera musculus Linnaeus.

Rorqual bleu (French). Balaenoptera musculus Linnaeus.

Rorqual commun (French). Balaenoptera physalus Linnaeus.

Rorqual de Rudolph (French). Balaenoptera borealis Lesson.

Rorqual de Sibbald (French). Balaenoptera musculus Linnaeus.

Rorqual du Cap (French). Megaptera novaeangliae Borowski.

Rorqual du Nord (French). Balaenoptera borealis Lesson.

Rorqual noueux (French). Megaptera novaeangliae Borowski.

Rörqual (Norwegian). Balaenoptera musculus Linnaeus.

Rörval (Swedish). Balaenoptera physalus Linnaeus.

Rough-toothed dolphin. Steno bredanensis Lesson.

Roundhead. Globicephala melaena Traill.

Rudolph's rorqual. Balaenoptera borealis Lesson.

Rusaluvak-kernertak (Eskimo, Greenland). Monodon monoceros Linnaeus.

Saaiwahl (Norwegian). Balaenoptera borealis Lesson.

Saber-toothed beaked whale. Mesoplodon stejnegeri True.

Sacha (Kamchatka dialect, old name). Delphinapterus leucas Pallas.

Saddle-backed dolphin. Delphinus delphis Linnaeus.

Sadshi (Japanese). Orcinus orca Linnaeus.

Saidianoi kit (Russian). Balaenoptera borealis Lesson.

Sakamata (Japanese). Orcinus orca Linnaeus.

Sakamata-kuzira (Japanese). Grampus griseus Cuvier.

Sandereydur (Icelandic). Balaenoptera borealis Lesson.

Sandhval (Danish). Balaena mysticetus Linnaeus.

Sapun (Russian). Phocoena phocoena Linnaeus.

Sarawak dolphin. Lagenodelphis hosei Fraser.

Sardaco-baleac (Basque, old name). Eubalaena glacialis Müller.

Sarde (French). Eubalaena glacialis Müller.

Sardine whale. Balaenoptera borealis Lesson.

Scamperdown whale. Mesoplodon grayi Haast.

Schachi (Japanese). Orcinus orca Linnaeus.

Schanelwall (German). Balaenoptera musculus Linnaeus.

Schlichteback (Danish). Balaena mysticetus Linnaeus.

Schnabelfisch (German). Delphinus delphis Linnaeus; Hyperoodon ampullatus Forster.

Schnabelwal (German). Balaenoptera physalus Linnaeus.

Schwarzwal (German). Globicephala melaena Traill.

Schwertfisch (German). Orcinus orca Linnaeus.

Schwertwal (German). Orcinus orca Linnaeus.

Scrag whale. Eschrichtius gibbosus Erxleben.

Sea unicorn. Monodon monoceros Linnaeus.

Sebi kujira (Japanese). Eubalaena glacialis japonica Lacépède.

Sei. Balaenoptera borealis Lesson.

Seichval (Norwegian). Balaenoptera borealis Lesson.

Seihval (Norwegian). Balaenoptera borealis Lesson.

Seival (Russian). Balaenoptera borealis Lesson.

Seiwal (German). Balaenoptera borealis Lesson.

Sei whale. Balaenoptera borealis Lesson.

Sejhval (Danish). Balaenoptera borealis Lesson.

Sejval (Swedish). Balaenoptera borealis Lesson.

Seldreki (Icelandic). Balaenoptera physalus Linnaeus.

Seldianoi kit (Russian). Balaenoptera physalus Linnaeus.

Seldianoi polosatik (Russian). Balaenoptera physalus Linnaeus.

Semi-iruka (Japanese). Lissodelphis borealis Lesson.

Semi-kuzira (Japanese). Eubalaena glacialis japonica Lacépède.

Senedette (French). Delphinapterus senedetta Lacépède [incertae sedis].

Serbio (Japanese). Balaena mysticetus Linnaeus.

Servi delfin (Russian). Grampus griseus Cuvier.

Servi kit (Russian). Eschrichtius gibbosus Erxleben.

Severnyi berardius (Russian). Berardius bairdi Stejneger.

Severnyi kitovidnyi delfin (Russian). Lissodelphis borealis Lesson.

Sharogolovyi delfin (Russian). Globicephala melaena Traill.

Sharp-headed finner whale. Balaenoptera acutorostrata Lacépède.

Shiro iruka (Japanese). Delphinapterus leucas Pallas.

Shironagasu kujira (Japanese). Balaenoptera musculus Linnaeus.

Short-finned blackfish. Globicephala melaena Traill.

Short-finned pilot whale. Globicephala melaena Traill.

Short-headed sperm whale. Kogia breviceps Blainville.

Shutnik (Russian). Phocoena phocoena Linnaeus.

Sibbald's rorqual. Balaenoptera musculus Linnaeus.

Sibo-gota (Japanese). Globicephala melaena Traill.

Sicho-gota (Japanese). Globicephala melaena Traill.

Sietback (Norwegian). Balaena mysticetus Linnaeus.

Sildehval (Norwegian). Balaenoptera physalus Linnaeus.

Sildeskiper (Danish). Balaenoptera acutorostrata Lacépède.

Sildrek (Icelandic). Balaenoptera physalus Linnaeus.

Sildrör (Norwegian). Balaenoptera physalus Linnaeus.

Sildual (Norwegian). Eubalaena glacialis Müller.

Sillhval (Swedish). Balaenoptera physalus Linnaeus.

Sillval (Swedish). Balaenoptera physalus Linnaeus.

Sinii kit (Russian). Balaenoptera musculus Linnaeus.

Siroiruka (Japanese). Delphinapterus leucas Pallas.

Siro-nagasu-kujira (Japanese). Balaenoptera musculus Linnaeus.

Slender-beaked dolphin. Stenella dubia Cuvier.

Slender blackfish. Feresa attenuata Gray.

Slender dolphin. Stenella dubia Cuvier.

Sletbacur (Icelandic). Balaena mysticetus Linnaeus.

Sletbag (Norwegian). Balaena mysticetus Linnaeus.

Sletbag (Icelandic). Eubalaena glacialis Müller.

Sletbak (Norwegian). Balaena mysticetus Linnaeus.

Small-headed dolphin. Stenella longirostris Gray.

Smaller ziphid whale. Berardius [bairdi] arnuxi Duvernoy.

Small sperm whale. Kogia breviceps Blainville.

Snaveldolfijn (Dutch). Steno bredanensis Lesson.

Snavel-potvisch (Dutch). Hyperoodon ampullatus Forster.

Social whale. Globicephala melaena Traill.

Soëen hiörning (Norwegian). Monodon monoceros Linnaeus.

Souffleur (French). Tursiops truncatus Montagu.

Sousou (French). Susu gangetica Lebeck.

South Atlantic porpoise. Phocoena dioptrica Lahille.

Southern beaked whale. Mesoplodon grayi Haast.

Southern bottle-nosed dolphin. Tursiops truncatus aduncus Ehrenberg.

Southern bottlenose whale. Hyperoodon planifrons Flower.

Southern harbor porpoise. Phocoena dioptrica Lahille.

Southern right whale. Eubalaena glacialis australis Desmoulins.

Southern right whale dolphin. Lissodelphis peronii Lacépède.

Sowerby's beaked whale. Mesoplodon bidens Sowerby.

Sowerby's Wal (German). Mesoplodon bidens Sowerby.

Sowerby's Whale. Mesoplodon bidens Sowerby.

Spackhuggare (Swedish). Orcinus orca Linnaeus.

Spaekhogger (Norwegian, Danish). Orcinus orca Linnaeus.

Speckled dolphin. Sotalia lentiginosa Owen.

Spectacled porpoise. Phocoena dioptrica Lahille.

Spekkhugger (Norwegian). Orcinus orca Linnaeus.

Spetsnäbbad finnfisk (Swedish). Balaenoptera acutorostrata Lacépède.

Sperm whale. Physeter catodon Linnaeus.

Spermacethval (Danish). Physeter catodon Linnaeus.

Spermacet whale. Physeter catodon Linnaeus.

Spermatsetovyi (Russian). Physeter catodon Linnaeus.

Spermhval (Norwegian). Physeter catodon Linnaeus.

Sperm whale. Physeter catodon Linnaeus.

Spidshvalen (Norwegian). Mesoplodon bidens Sowerby.

Spinger (Norwegian). Delphinus delphis Linnaeus.

Spinghval (Norwegian). Delphinus delphis Linneaus.

Spitsdolfijn (Dutch). Mesoplodon bidens Sowerby.

Spitssnuitdolfijn (Dutch). Mesoplodon bidens Sowerby.

Spotted dolphin. Stenella pernettyi Blainville.

Sprat whale. Balaenoptera acutorostrata Lacépède.

Springare (Swedish). Delphinus delphis Linnaeus.

Springer (German, Norwegian). Lagenorhynchus acutus Gray.

Springhval (Norwegian). Lagenorhynchus acutus Gray; Delphinus delphis Linnaeus.

Srednii plavun (Russian). Ziphius cavirostris Cuvier.

Srednii plevun (Russian). Ziphius cavirostris Cuvier.

Staurvhal (Norwegian). Orcinus orca Linnaeus.

Starhyn ning (Norwegian). Orcinus orca Linnaeus.

Steineger's beaked whale. Mesoplodon steinegeri True.

Steypireydr (Icelandic). Balaenoptera musculus Linnaeus.

Storhufd (Norwegian). Physeter catodon Linnaeus.

Stor-hval (Norwegian). Balaenoptera physalus Linnaeus.

Stourvaga (Norwegian). Orcinus orca Linnaeus.

Stourvaga (1101 Wegian). Oremas orea Elimacus.

Stourvagn (Norwegian). Orcinus orca Linnaeus.

Strap-toothed whale. Mesoplodon layardi Gray.

Striped dolphin. Lagenorhynchus obliquidens Gill.

Striped porpoise. Lagenorhynchus obliquidens Gill.

Stub (Norwegian). Hyperoodon ampullatus Forster.

Stubhval (Danish). Megaptera novaeangliae Borowski.

Sue-hval (Norwegian). Physeter catodon Linnaeus.

Sulphurbottom whale. Balaenoptera musculus Linnaeus.

Summer whale. Balaenoptera acutorostrata Lacépède.

Sunameri (Japanese). Neophocaena phocaenoides Cuvier.

Susu (Hindu). Susu gangetica Lebeck.

Susuk (Bengalese). Susu gangetica Lebeck.

Suzi-iruka (Japanese). Stenella caeruleoalbus Meyen.

Svaerdhval (Danish). Orcinus orca Linnaeus.

Svärdfisk (Swedish). Orcinus orca Linnaeus.

Svarthval (Danish, Dutch). Eubalaena glacialis Müller.

Sverdfiscur (Icelandic). Orcinus orca Linnaeus.

Svinka (Russian). Phocoena phocoena Linnaeus.

Svinucha pobrezni (Czech). Phocoena phocoena Linnaeus.

Svinehval (Norwegian). Globicephala melaena Traill.

Swinia morska (Polish). Phocoena phocoena Linnaeus.

Swordfish. Orcinus orca Linnaeus.

Sword grampus. Orcinus orca Linnaeus.

Takyshkok (Eskimo, Chukotski Peninsula). Balaenoptera musculus Linnaeus.

Tandthöije (Norwegian). Tursiops truncatus Montagu.

Tandthoye (Danish). Orcinus orca Linnaeus.

Tasman beaked whale. Tasmacetus sheperdi Oliver.

Tauvar (Eskimo, Greenland). Monodon monoceros Linnaeus.

Thalmaha (Sinhala [Ceylon]). Whale.

Tikagulik (Eskimo, Chukotski Peninsula, Alaska and Greenland). Balaenoptera acutorostrata Lacépède.

Tikhookeanskii belobokii delfin (Russian). Lagenorhynchus obliquidens Gill.

Tkakae (Hottentot). Baleen whale.

Tnmerken-uiiut (Luoravetlany dialect, Chukotski peninsula). Balaenoptera musculus Linnaeus.

Tobi-iruka (Japanese). Delphinus delphis Linnaeus [adult form].

Tonina (Spanish). Pontoporia blainvillei Gervais and d'Orbigny; Stenella longirostris Blainville.

Toninha (Portuguese). Phocoena phocoena Linnaeus; Pontoporia blainvillei Gervais and d'Orbigny.

Tonyn (Dutch). Phocoena phocoena Linnaeus.

Trold-hval (Norwegian). Physeter catodon Linnaeus; Megaptera novaeangliae Borowski.

True's beaked whale. Mesoplodon mirus True.

Trumblare (Sweden). Phocoena phocoena Linnaeus.

Trumpo (Bermuda). Physeter catodon Linnaeus.

Tselkh-koo (Indian, Alaska). Phocoena phocoena Linnaeus.

Tsuchi-kujira (Japanese). Berardius bairdi Stejneger.

Tsuchimbo (Japanese). Berardius bairdi Stejneger.

Tsunabi (Japanese). Kogia breviceps Blainville.

Tucuxi (Tupi, Brazil). Sotalia fluviatilis Gervais and Deville.

Tue-qual (Norwegian). Balaenoptera physalus Linnaeus.

Tugalik (Eskimo, Greenland). Monodon monoceros Linnaeus.

Tu-kiak (Kamchadal dialect, old name). Delphinus delphis Linnaeus.

Tumberello (Italian). Delphinus delphis Linnaeus.

Tumlare (Swedish). Phocoena phocoena Linnaeus.

Tumler (Norwegian). Tursiops truncatus Montagu.

Tumler (Norwegian, Danish). Phocoena phocoena Linnaeus.

Tümmler (German). Tursiops truncatus Montagu.

Tunina de vientre blanco (Spanish). Cephalorhychus eutropia Gray.

Tunina overa (Spanish). Cephalorhynchus commersoni Lacépède.

Tunnlik tumlare (Swedish). Orcinus orca Linnaeus.

Tunnolik (Eskimo, western Greenland). Balaenoptera musculus Linnaeus; Balaenoptera physalus Linnaeus.

Tursion (French). Tursiops truncatus Montagu.

Tykyshkok (Eskimo, Chukotski Peninsula). Balaenoptera physalus Linnaeus.

Tyrtak = Tirtak (Turkish). Delphinus delphis Linnaeus.

Ugamachcach (Aleutian). Balaena mysticetus Linnaeus.

Uki-kujira (Japanese). Kogia breviceps Blainville.

Umgulik (Aleutian). Balaenoptera musculus Linnaeus.

Vaagehval (Norwegian). Balaenoptera acutorostrata Lacépède.

Vaaghval (Norwegian). Balaenoptera acutorostrata Lacépède.

Vagehval (Norwegian). Balaenoptera acutorostrata Lacépède.

Vaghund (Norwegian). Orcinus orca Linnaeus.

Vallena (Spanish). Eubalaena glacialis Müller.

Valzius (Latvian). Megaptera novaeangliae Borowski.

Van hund (Norwegian). Orcinus orca Linnaeus.

Vapakylichan (Koryak dialect, Oliutorski inlet and Maiua-Pylgo). Balaenoptera physalus Linnaeus.

Vatushalar (Icelandic). Balaena mysticetus Linnaeus.

Veloryba biskejska (Czech). Eubalaena glacialis Müller.

Veloryba gronská (Czech). Balaena mysticetus Linnaeus.

Veselyi kit (Russian). Megaptera novaeangliae Borowski.

Vikarehval (Swedish). Balaenoptera acutorostrata Lacépède.

Vikarehval (Swedish). Balaenoptera acutorostrata Lacépède.

Vikval (Swedish). Balaenoptera acutorostrata Lacépède.

Vinkval (Swedish). Balaenoptera acutorostrata Lacépède.

Vinvisch (Dutch). Balaenoptera physalus Linnaeus.

Visingkh-potlaengkh (Ostyak dialect). Delphinapterus leucas Pallas.

Vising-totleng (Ostyak dialect). Delphinapterus leucas Pallas.

Vorvanovec nosatý (Czech). Berardius bairdi Stejneger.

Vorvan tuponocý (Czech). Physeter catodon Linnaeus.

Vraie baleine (French). Balaenoptera physalus Linnaeus.

Vyvtalan (Koryak dialect, Oliutor inlet, settlement of Maina-Pylgo). Balaena mysticetus Linnaeus.

Walfisch (German). Balaena mysticetus Linnaeus.

Walvisch (Dutch, Belgian). Balaena mysticetus Linnaeus.

Walzius (Latvian). Balaena mysticetus Linnaeus.

Weissfisch (German). Delphinapterus leucas Pallas.

Weissschnauziger delphin (German). Lagenorhynchus albirostris Gray.

Weissschnauziger springer (German). Lagenorhynchus albirostris Gray.

Weisswal (German). Delphinapterus leucas Pallas.

Whalebone whale. Balaena mysticetus Linnaeus.

White-beaked dolphin. Lagenorhynchus albirostris Gray.

White-bellied dolphin. Cephalorhynchus eutropia Gray.

White dolphin. Sotalia chinensis Osbeck.

White fish. Delphinapterus leucas Pallas.

White flag dolphin. Lipotes vexillifer Miller.

White-headed dolphin. Cephalorhynchus hectori Van Bénéden.

White-headed or mottled grampus. Grampus griseus G. Cuvier.

White-sided bottlenose. Lagenorhynchus acutus Gray.

White-sided dolphin. Lagenorhynchus cruciger Quoy and Gaimard; Lagenorhynchus acutus Gray.

White walvis (Dutch). Delphinapterus leucas Pallas.

White whale. Delphinapterus leucas Pallas.

Whitzijdedolfijn (Dutch). Lagenorhynchus acutus Gray.

Wieloryb grenlandzki (Polish). Balaena mysticetus Linnaeus.

Witsnuitdolfijn (Dutch). Lagenorhynchus albirostris Gray.

Witte dolfijn (Dutch). Delphinapterus leucas Pallas.

Witvis (Dutch). Delphinapterus leucas Pallas.

Witzijdolfijn (Dutch). Lagenorhynchus acutus Gray.

Wolkmorskoi (Russian). Physeter catodon Linnaeus.

Wongu (Telugu, India). Kogia breviceps Blainville.

Worwon (Russian). Delphinus delphis Linnaeus.

Zalivov (Russian). Balaenoptera acutorostrata Lacépède.

Zaru-Kaburi (Japanese). Kogia breviceps Blainville.

Zatcha (Kamchatka dialect). Delphinapterus leucas Pallas (old name).

Zatokuzira (Japanese). Megaptera novaeangliae Borowski.

Zee-vark (Dutch). Phocoena phocoena Linnaeus.

Ziphio o ballena de Cuvier (Spanish). Ziphius cavirostris Cuvier.

Ziphius de Cuvier (French). Ziphius cavirostris Cuvier.

Zwardwalvis (Dutch). Orcinus orca Linnaeus.

Zwarte schijnorka (Dutch). Pseudorca crassidens Owen.

Zwarte zwaardwalis (Dutch). Pseudorca crassidens Owen.

Zwergpottwal (German). Kogia breviceps Blainville.

Zwaardvis (Dutch). Orcinus orca Linnaeus.

Zwergglattwal (German). Caperea marginata Gray.

Zwergwal (German). Balaenoptera acutorostrata Lacépède.

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